

Annual Report

(2001-02)

on

The Working of State Electricity Boards & Electricity Departments



सत्यमेव जयते

**Planning Commission
(Power & Energy Division)
Government of India
May, 2002**

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PREFACE

The Planning Commission (Power and Energy Division) has been bringing out the Annual Report on the working of State Electricity Boards and Electricity Departments in the country for over a decade now. In fact, the present Report is the 14th Annual Report. The data throw light on the state of affairs of the SEBs and the State Electricity Departments which is not too happy. A brief analysis covers the performance of the power utilities during the 8th Plan and thereafter.

For the second year running, the Report contains the Power Sector Performance At A Glance as well as Highlights – Financial and Physical. The figures give a comparative picture of the status of the power sector at the end of the 9th Plan compared to that of the beginning of the 9th Plan. The figures speak for themselves. The financial health of SEBs has shown deterioration during the Plan period despite a short period of halting power sector reforms in some States. Obviously, much more fundamental reforms involving improvement in governance leading to efficiency gains need to be carried out.

The data contained in the Report have been obtained from the State Electricity Boards and the Electricity Departments of the States / UTs in connection with the discussions held to estimate the financial resources for the Annual Plan 2001-02. The information provided in the Report is not always based on audit reports of the SEBs as the accounts of many SEBs are audited with considerable time lag. In view of this, the information based on unaudited accounts for certain years may undergo some modifications as and when the financial statements of the SEBs are audited and updated.

It has been our continuous endeavour to make the Report more useful as a source of reference. Any suggestion for improvement in the content and presentation of the Report will be highly appreciated.

The Report has been revised and updated by Shri I.A. Khan, Deputy Adviser (Power) and Shri Surinder Singh, Senior Research Officer with the help of other officers of the Division under the guidance of Shri S.P. Sethi, Adviser (Energy) and Shri L.P. Sonkar, Joint Adviser (Power).

Shri R.K. Kaul, Deputy Adviser (Power), Shri B. Srinivasan, Deputy Adviser (RE) and Shri Amar Singh, Senior Research Officer have been helpful in updating the write-ups as well as the annexures. For all these officers, the work has been a labour of love. I am thankful to all of them. I would also like to acknowledge the help and support provided by the Ministry of Power, Central Electricity Authority and State Power Utilities and thank them for their unstinted cooperation.

(P.K. Mohanty)
Principal Adviser (Energy)
Planning Commission

New Delhi
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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
WBPDCL	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 31.3.2002

Owership/Mode	Hydel	Steam	Gas	Diesel	Wind	Nuclear	Total
State	22636.02	36302.00	2661.70	582.89	62.86	0.00	62245.47
Central	3049.00	21417.51	4419.00	0.00	0.00	2720.00	31605.51
Private	576.20	4411.38	4082.40	551.94	1444.60	0.00	11066.52
Total	26261.22	62130.89	11163.10	1134.83	1507.46	2720.00	104917.50
% of Installed Capacity	25.03	59.22	10.64	1.08	1.44	2.59	100.00

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 Sectors	All Sectors		Power Sectors	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	19396.28	129757.30	14.95
Annual Plan 1998-99)	25741.79	185907.47	13.84	21159.02	149403.46	14.16
Annual Plan (1999-2000)	26825.00	192262.89	13.95	21327.42	160608.30	13.28
Annual Plan (2000-01)	26554.36	203359.35	13.06	22066.39	187930.90	11.74 (RE)
Annual Plan (2001-02)	27842.67 *	228492.86	12.19	NA	NA	NA

* Excluding Jharkhand





PHYSICAL PERFORMANCE (At the All-India Level)

Year	Plant Availability (%)	Plant Load Factor (%)	T & D Losses (%)
1996-97	79.00	64.40	24.53
1997-98	79.40	64.70	24.79
1998-99	78.70	64.60	26.45
1999-2000	80.30	67.30	30.80
2000-01	80.50	69.00	29.90
2001-02	NA	69.90	27.80

FINANCIAL PERFORMANCE OF SEBs

No.		1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)	1999-2000 (Actual)	2000-01 (RE)	2001-02 (AP)
1	Cost of Supply (Paise/Kwh)	215.60	239.73	263.05	305.12	327.16	349.85
2	Average Tariff (Paise/Kwh)	165.30	180.30	186.77	206.98	226.26	239.92
3	% of Recovery	76.70	75.21	71.00	67.84	69.16	68.58
4	Average Agriculture Tariff (Paise/Kwh)	21.20	20.22	21.01	22.61	35.38	41.54
5	Commercial Losses (with subsidy) (Rs. Crore)	-4674.31	-7597.95	-10508.75	-15088.14	-17793.72	-24837.22
6	Commercial Losses (without subsidy) (Rs. Crore)	-11305.00	-13963.00	-20860.00	-26353.00	-25259.00	-33177.00
7	Net Internal Resources (Rs. Crore)	-2090.70	-6209.00	-8954.40	-13316.30	-15620.60	-19103.90
8	Subsidy for Domestic Consumers	4386.01	5258.43	6332.48	8121.11	10036.07	12238.51
9	Subsidy for Agriculture Consumers	15585.20	19021.36	22473.13	24650.02	26950.00	30462.00
10	Gross Subsidy* (Rs. Crore)	20210.75	24749.78	29261.49	33144.68	37331.05	43060.10
11	Subvention Received (Rs. Crore)	6630.60	6364.80	10351.55	11264.53	7465.33	8339.62
12	Uncovered Subsidy (Rs. Crore)	5805.03	9374.16	10599.95	16616.37	24118.45	28976.92
13	Gross Subsidy Per Unit of Sales (Paise/Kwh)	75.40	87.25	98.81	110.98	118.57	126.62

* 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 2002 is 104917.50 MW, of which 59.33% is owned by the States, 30.12% by Centre and 10.55% is owned by the Private Sector.
- The share of hydro capacity is about 25.03%.
- Against the 9th Plan target of 40245 MW capacity addition, the actual addition is about 19015 MW i.e., 47.2%.
- Capacity addition in the Central Sector is 4504.0 MW i.e. 37.8% as against the target of 11909 MW.
- Capacity addition in the State Sector is 9450.1 MW i.e. 87.9% as against the target of 10748 MW.
- Capacity addition in the Private Sector is 5061 MW, which is about 28.8% of the target of 17589 MW.
- Slippage in the case of hydro as well as thermal capacity is 59.9%.
- The capacity addition in Nuclear Power is 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 69.9% in 2001-02.
- The T&D losses increased from a level of 24.53% in 1996-97 to 26.5% in 1998-99 and are expected to increase further to about 27.8% during 2001-02.
- The actual power supply position as on March 2002, as assessed by CEA, indicates a peak deficit of 12.6% and energy deficit of 7.5% 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 355 Kwh during 1999-2000 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 165.30 paise in 1996-97 to 239.92 paise in 2001-02.
- The cost of supply has increased from a level of 215.6 paise in 1996-97 to 349.85 paise in 2001-02.
- *The gap between average cost of supply and average tariff has increased from a level of 50 paise/Kwh in 1996-97 to 110 paise/Kwh in 2001-02.*
- The recovery of cost of supply through tariff has declined from 76.7% in 1996-97 to 68.58% in 2001-02.
- The domestic and agricultural consumers continue to get power supplies at subsidized rates. The estimated tariff for domestic and agricultural consumers for the year 2001-02 is 195.62 paise and 41.56 paise respectively as against the average tariff of 239.92 paise/Kwh.
- *The tariff charged to agricultural consumers has increased marginally from a level of 21.2 paise/Kwh in 1996-97 to 41.54 paise/Kwh in 2001-02. And yet, this is much below the level of 50 Paise/Kwh minimum recommended by the Chief Ministers Conference.*
- Subsidy payable by State Govt. on account of energy sales to domestic consumers is likely to increase from a level of Rs. 4386 crore in 1996-97 to Rs. 12238.5 crore in 2001-02.
- Subsidy on account of sales to agricultural consumers is estimated to increase from a level of Rs. 15586 crore in 1996-97 to Rs. 30462.0 crore in 2001-02.
- Gross subsidy for domestic, agricultural and interstate sales has increased from a level of Rs. 20210 crore in 1996-97 to Rs. 43060.10 crore in 2001-02.
- Subvention given by the State Governments to partly compensate the subsidized sales to domestic and agricultural consumers is estimated at Rs.8339.60 crore in 2001-02 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. 28976.92 crore during 2001-02 as compared to Rs. 5805.03 crore in 1996-97.
- The estimated commercial losses of SEBs (without subsidy) during 2001-02 are Rs. 33177crore as compared to Rs. 11305 crore during 1996-97. The commercial losses with subsidy payable by State Govt. for the above years are Rs. 24837 crore and Rs. 4674.31 crore respectively.
- The net internal resources of the SEBs continue to be negative. It was estimated to be Rs. (-) 19104 crore in 2001-02 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 50.1% in 2001-02 as against 49% in 1996-97.
- The share of industry in the total energy sales is showing a declining trend. In 2001-02, it was 29% 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 19 States.**
- **The States of Orissa, Andhra Pradesh, Haryana, Karnataka, Rajasthan and U.P. have restructured their Electricity Boards.**
- **The Electricity Bill 2001 has been introduced in the Parliament. The new Electricity Bill would replace the existing three Laws namely: Electricity Act 1910, Electricity (Supply) Act 1948 and Electricity Regulatory Commission Act 1998.**

CHAPTER 1

AN OVERVIEW

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 and distribution, 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, Transmission and Distribution Losses (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.

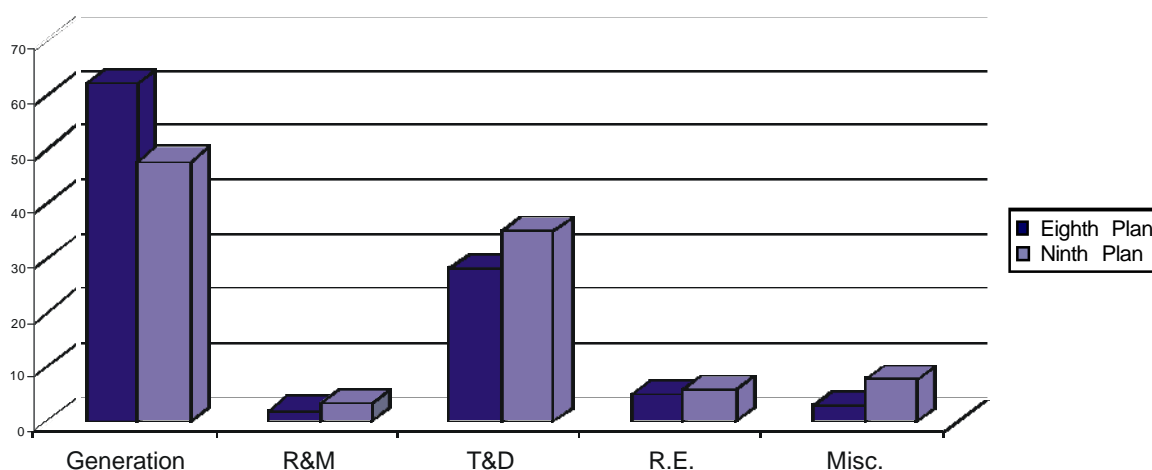
1.2 Plan Outlay and its Composition

With the exception of the Second and the Third Five Year Plans, the share of electricity sector in the total plan outlay has been about 15-20% as indicated in Annexure 2.1. While the share of approved outlay of the Power Sector in the Ninth Plan in percentage terms declined to 14.49% of all sector approved outlay, this share in the total outlay for Annual Plans 1997-98, 1998-99, 1999-2000, 2000-01 and 2001-02 has been 13.36%, 13.84%, 13.95%, 13.06% and 12.19% respectively. Out of the allocated outlays, the provision for T&D schemes has been lower than the desired level of investment in the past. Inadequate investments in the T&D systems could be one of the major reasons for poor quality of supply of electricity (voltage fluctuations and break-downs). Apart from regular investment by states in strengthening their sub-transmission & distribution network, the Government is providing investment through Accelerated Power Development Programme (APDP) as part of reform package to states willing to implement the

reforms in distribution sector. This may facilitate higher investment in Transmission and Distribution System during Tenth Plan and bring down the level of T & D Losses.

Another important area, which could yield tangible benefits is adequate investments in renovation and modernisation (R&M) of existing generation plants. It has distinct cost advantage over investment in new generation capacity. The Accelerated Generation and Supply Programme (AG&SP) encourages the states to take up R&M schemes and improve the performance of existing assets. Figure 1.1 gives the comparison of share of outlay for generation T&D, R&M, RE and other works in the total power sector outlay for the Eight Five Year Plan with Ninth Five Year Plan period. This includes provision for State Sector as well as Central Sector.

Figure 1.1
Composition of Power Sector Outlay



It can be observed from Figure 1.1 that while the share of outlay for generation in the total power sector outlay during the Ninth Plan has declined to 47% as compared to 62% in Eighth Plan, the share for T&D schemes has increased to 37% of the total Power Sector Outlay as compared to a provision of 28% during Eighth Plan period.

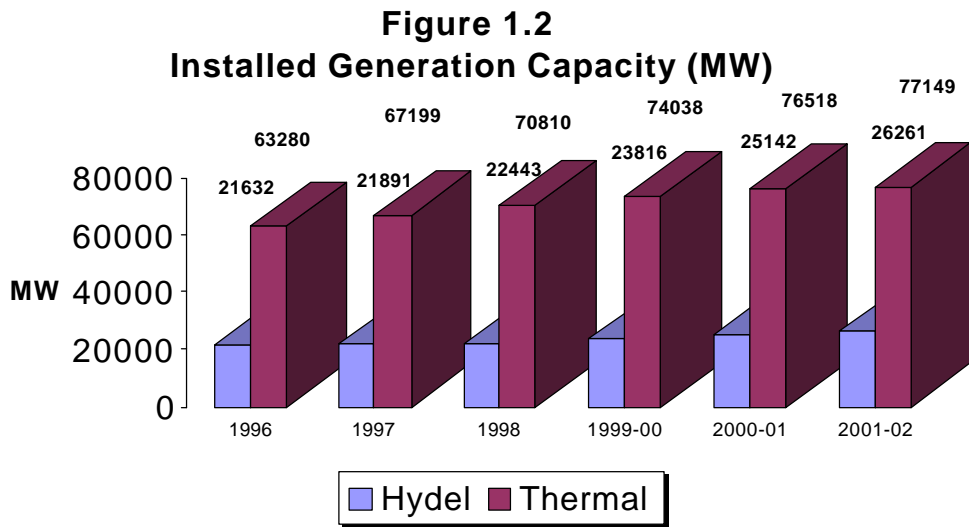
1.3 The Elasticity of Consumption of Electricity

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

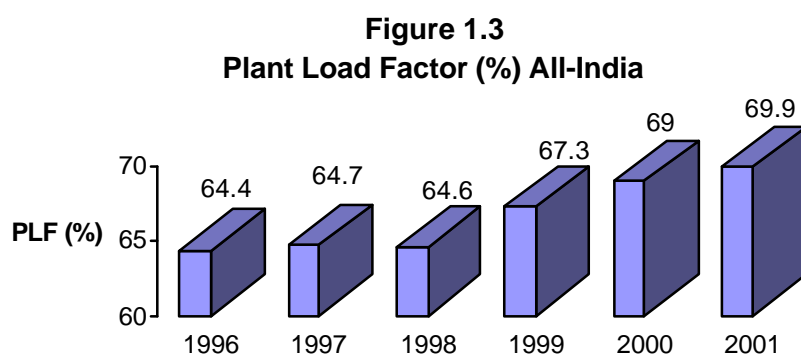
1.4 Installed Capacity



The total installed generation capacity on 31st March, 2002 was 104917.5 MW. The share of hydel capacity was 25.03%, Steam 59.22%, Gas 10.64%, Nuclear 2.59% 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 9th Plan is 19015.1 MW. Figure 1.2 gives the installed capacity in power sector (thermal includes capacity from gas, diesel, wind and nuclear) from 1996-97 to 2001-02.

1.5 Plant Load Factor

At the beginning of the Eighth Plan, the PLF at the All India level was about 57%. With the continued emphasis on better utilisation of the existing assets, there has been a marked improvement in the All-India average PLF in recent years, and currently it is around 69.9%. The improvement has been 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 1996-97 to 2001-02.



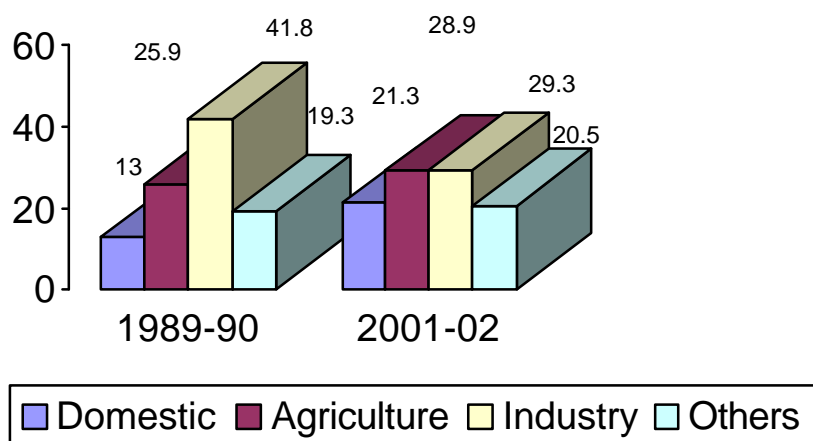
1.6 Transmission & Distribution Losses

Currently the reported T&D losses are quite high in India compared to many other countries. Until early 1990s, T & D Losses accounted for nearly 22% of the total electricity available. However, after the initiation of reforms & restructuring process, the reforming states started reporting higher T&D losses. It is stated that the utilities are now able to make realistic estimates of T&D losses in the power system, which were earlier partly camouflaged as agricultural consumption. It should be noted here that the utilities on an average, could bill about 50-60% of electricity sold and about 70-80% of these bills actually being collected. In the absence of adequate metering of energy consumed, particularly agricultural consumers (who pay flat rates based on the capacity of the pump set rather than actual consumption), the reported losses at best could be estimates. The average estimated T&D losses for the SEBs and EDs based on the Resource Discussions for the year 2001-02 for the years 2000-01 (RE) and 2001-02 (AP) are reported to be 29.9% and 27.8% respectively. The All India losses reported for the years 1992-93 to 1998-99 in this report 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.

1.7 Energy Sales

The pattern of sales to various consumer categories has undergone significant changes in the last few years. Figure 1.4 shows the sectoral consumption patterns for the years 1989-90 and 2001-02 (AP). While the share of domestic and agriculture sectors in the total sales increased from 39% in 1989-90 to nearly 50% in 2001-02, the share of industry declined from over 50% to about 30% in the same period. 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 subsidised 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.

Figure 1.4
Sector-wise Consumption of Electricity%



Per Capita Consumption

The average per capita electricity consumption of the country as reported by CEA increased from 334 Kwh in 1996-97 to 355 Kwh in 1999-2000. Though the reported increase in per capita consumption is significant, India continues to have one of the lowest per capita consumption as compared to rest of the world.

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 2002 indicates energy deficit of 7.5 % and peak deficit of 12.6 % (Annexure 3.39). 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 unit cost of supply of utilities has been progressively increasing over the years. During the last one decade the increase in the unit cost of supply has been steep and reached the level of 327 paise per unit in 2000-01 (RE) as compared to 108.6 paise/Kwh in 1990-91. The increase in the total cost of supply could be attributed mainly to the increase in the cost of fuel, establishment & Administration cost, interest payment liability and the cost of power purchase. However, the maximum increase is in power purchase component. There are wide inter-State variations. State-wise comparison can be seen in Chapter 4.

1.10 Average Tariff

Though the average tariff has increased substantially during the past few years, the increase has not been commensurate with the increase in the cost of supply. As a result, the gap between the cost of supply and average tariff has been widening over the years. This gap has increased from a level of 50 paise in 1996-97 to about 110 paise in 2001-02. The level of recovery, therefore, has declined from 77% in 1996-97 to 69% in 2001-02. Though the number of consumers and the quantum of sales have increased in this period, the increase in number of consumers has been mainly in the domestic and agriculture sectors, who are getting power supplies at subsidized rates. This could be one of the reasons for the widening gap between average cost of supply and average tariff.

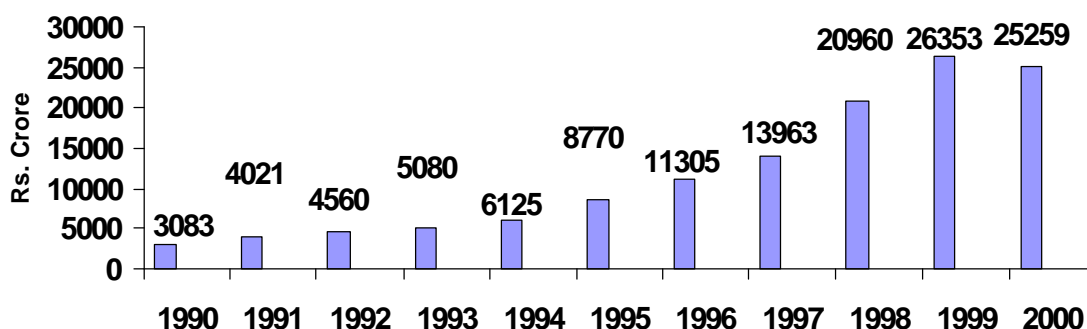
19 states have set up their respective State Electricity Regulatory Commissions. The SERCs of Orissa, Haryana, Andhra Pradesh, Gujarat, Karnataka, Uttar Pradesh and Rajasthan have already issued tariff orders. These tariff orders have been helpful in rationalising the tariff structure as well as improved the revenue realisation 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 2001-02 and may not reflect the impact of tariff awards given by the SERC subsequently in various states.

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 subsidised 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.25259 crore in 2000-01 (RE). These are projected to increase to Rs. 33177 crore in 2001-02 (AP). Figure 1.5 indicates the increase in losses from 1990-91 to 2000-01 (RE). State-wise details can be seen in Annexure 4.32.

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



1.12 Subsidy

Gross Subsidy on energy sales has been increasing over the years because of the policy of some of the states to provide electricity at subsidised rates to agriculture and domestic consumers. The gross subsidy is likely to increase from a level of Rs. 7449 crore in 1991-92 to Rs. 43060.10 crore in 2001-02 (AP). The gross subsidy per unit (Kwh) of energy sold during 2001-02 works out to 126.62 paise. While some State Governments partly compensate the SEBs for the subsidised sales of electricity to agricultural and domestic sectors, others do not provide any compensation at all. The 2001-02 Annual Plan Proposals indicate the likely subvention from State Governments as Rs. 8339.62 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 subsidisation for the year 2001-02 is Rs. 5759.01 crore.

1.13 Rate of Return

The return on the assets employed by the SEBs has been turning more and more negative because of growing levels of commercial losses. It is estimated that for the year 2001-02 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 110 paise and 117 paise per KWh respectively.

The following table shows the trend in the rate of return (without subsidy) during the past one decade.

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	(-)34.2
1999-2000	(-)43.1
2000-01 (RE)	(-)39.1
2001-02 (AP)	(-)44.1

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 purchases in view of their generally poor financial health. 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

CHAPTER 2

POWER SECTOR OUTLAY AND GENERAL ISSUES

2.1 Introduction

This chapter reviews the total investment in the Power Sector including Central Sector, State Electricity Boards (SEBs) and Electricity Departments (EDs) as well as the pattern of investment for various activities in the Sector like Generation, T&D, R&M, RE and other schemes. Power balances are presented from 1980-81 to 1999-2000. The elasticities of electricity generation and consumption with respect to GDP have also been worked out for the period 1980-81 to 1999-2000.

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 Annual Plans of the Ninth Plan. Annexures 2.5 to 2.12 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 for the Ninth Plan period.

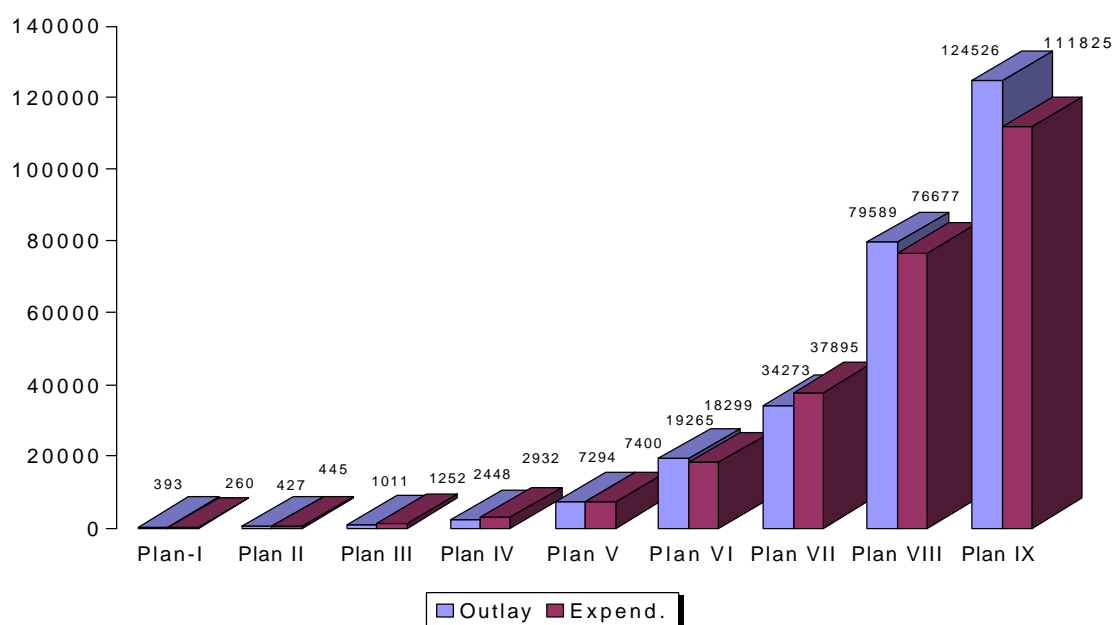
2.3 Plan-wise Trends

Power Sector is one of the key infrastructures required for sustained economic growth. The Government has been allocating adequate outlays during all the Plan periods. With the exception of the Second and Third Five Year Plans, the share of Power Sector Outlay in the Total Plan Outlay has been more than 15% as indicated in Annexure 2.1. 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, though the allocation to Power Sector has increased in absolute terms, its percentage share in the All Sector outlay declined as compared to earlier Plans. While the allocation to Power Sector accounted for 14.49% of the total Plan outlay, the share of total power sector outlay in the total

All Sector outlay for the Annual Plans 1997-98, 1998-99, 1999-2000, 2000-01 and 2001-02 had been 13.36%, 13.84%, 13.95%, 13.06% and 12.19% 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)**



Note: The Ninth Plan expenditure includes actuals for the first three years (1997-2000), for the year 2000-01 actual for centre & revised estimate (RE) for States and for the year 2001-02 RE for Centre & Approved outlays (excluding Jharkhand) for States.

Table 2.1 shows that the relative share of Power sector in total outlay both at the All India and at the State levels has been gradually declining in the past one decade. While the share of total power sector in the All sector outlay at the All India level declined from 18.5% in 1992-93 to 12.19% in 2001-02, the share of Power sector in total All Sector outlay in case of states declined from 27.2% in 1992-93 to 15.25% in 2001-02. The decline in the share of Power sector outlay in case of states could be due to two reasons: the first reason could be the expectation of some of the states regarding the private sector investment from the beginning of the Ninth Plan; second reason could be the declining plan

allocation to the SEBs from State Governments and because of this the utilities have been forced to go for market borrowings. However, some of the states continue to provide higher outlays for the Power sector. For example, in 2001-02, the share of power sector in total outlay was over 27.81% in case of Andhra Pradesh, 21.45% in case of West Bengal and 25.39% in case of Rajasthan. On the other hand, the share of power sector in total outlay was only 0.65% in case of Chattisgarh and 2.29% in Bihar. State-wise details are given in Annexure 2.4.

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	19.90
1998-99	13.84	18.38
1999-2000	13.95	17.57
2000-01	13.03	17.59
2001-02	12.19	15.25

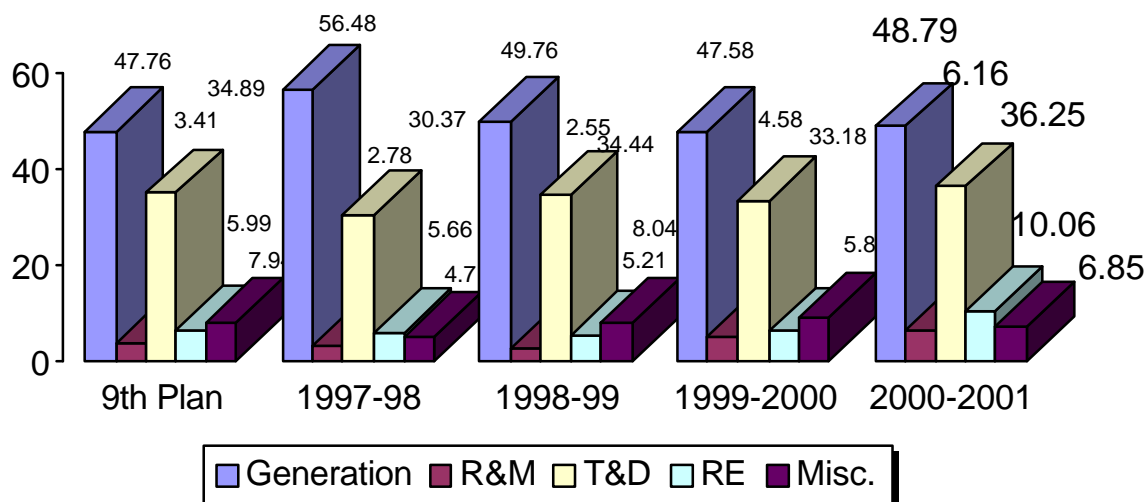
2.4 Activity wise Distribution of Power Sector Outlay

Table 2.2 gives activity-wise distribution of power sector outlays in the 8th Plan, Ninth Plan and Annual Plans 1997-98, 1998-99, 1999-2000 and 2000-2001. 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	2000-01
Generation	62.0	47.76	56.48	49.76	47.58	48.79
R&M	2.0	3.42	2.78	2.55	4.58	6.16
T&D	28.0	34.89	30.37	34.44	33.18	36.25
R.E.	5.0	5.99	5.66	5.21	5.83	10.06
Misc.	3.0	7.94	4.71	8.04	8.90	6.85

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 48.79% in 2000-2001 and correspondingly the outlay on T&D increased to 36.25% as compared to 22.5% in 1992-93. State-wise details are given in Annexures 2.6 to 2.12. 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.

2.5 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 1991-92 to 1999-2000 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 1999-2000, it has been around 7.05% of the gross generation. T&D losses are higher than the desirable levels. In 1999-2000, T&D losses have been around 31% of the total energy available for sales 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)
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	448544	31423	417121	4353	111484	309734
1999-2000	481032	33913	447119	4097	141851	309620

* Purchases from Bhutan + Nepal

2.6 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
Fifth Plan	1.88	1.88
Sixth Plan	1.47	1.39
Seventh Plan	1.57	1.50
Eighth Plan	1.02	0.97

While the elasticity of electricity generation and its consumption with respect to GDP for the period 1950-51 to 1999-2000 is 2.2 and 2.1 respectively, the elasticity of electricity generation and consumption with respect to GDP for the period 1990-91 to 1999-2000 works out to 1.09 and 0.89 respectively. This demonstrates that elasticity of electricity generation and consumption vis-a-vis GDP has declined over the time after an increase till the Third Plan. It implies that if the GDP increased by 1%, electricity generation and consumption increased by only 1.09% and 0.89% respectively, during 1990-91 to 1999-2000.

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 in the State sectors. This along with some of the other physical parameters is considered in the next Chapter.

Annexure-2.1

Planwise Outlays and Expenditure for Power Sector

Plan Period	Outlays (Rs.Crore)		Col.2 as % of Col.3	Expenditure (Rs.Cr.)		Col.2 as % of Col.3
	Power Sector	All Sectors		Power Sector	All Sectors	
1	2	3	4	5	6	7
First Plan (1951-56)	393.44	2068.76	19.02	260.00	1960.00	13.27
Second Plan (1956-61)	426.87	4800.00	8.89	445.49	4600.00	9.68
Third Plan (1961-66)	1019.72	8094.53	12.60	1252.30	8576.50	14.60
Annual Plan (1966-69)	1063.96	6665.04	15.96	1212.50	6625.40	18.30
Fourth Plan (1969-74)	2447.57	15902.16	15.39	2931.70	15778.88	18.58
Fifth Plan (1974-79)	7293.90	39287.49	18.57	7399.50	39426.20	18.77
Annual plan (1979-80)	2395.99	12549.63	19.09	2240.50	12176.50	18.40
Sixth Plan (1980-85)	19265.44	95700.00	20.13	18298.68	109291.44	16.74
Seventh Plan (1985-90)	34273.46	180000.00	19.04	37895.30	218729.60	17.33
Annual P Lan (1990-91)	12479.64	64716.88	19.28	13147.52	61421.00	21.41
Annual P Lan (1991-92)	13678.31	72316.75	18.91	12463.31	64953.00	19.19
Eighth P Lan (1992-97)	79589.32	434100.00	18.33	76677.38	485457.17	15.79
Annual Plan (1992-93)	14943.93	80771.96	18.50	12396.65	72852.40	17.02
Annual Plan (1993-94)	16419.91	100120.16	16.40	14521.62	88080.70	16.49
Annual Plan (1994-95)	18445.50	112197.12	16.44	16310.22	98167.30	16.61
Annual Plan (1995-96)	19637.44	128589.98	15.27	16511.39	107380.37	15.38
Annual Plan (1996-97)	19084.50	146106.73	13.06	16937.50	118976.40	14.24
Ninth Plan (97-2002)	124526.00	859200.00	14.49	NA	NA	
Annual Plan (1997-98)	20830.51	155904.67	13.36	19396.28	129757.30	14.95
Annual Plan (1998-99)	25741.79	185907.47	13.85	21159.04	149403.46	14.16
Annual Plan (1999-2000)	26825.00	192262.89	13.95	21327.42	160608.33	13.28
Annual Plan (2000-01)	26554.36	203359.35	13.06	22066.39	187930.90	11.74
Annual Plan 2001-02	27842.67*	228492.86	12.19	NA	NA	NA

* Excluding Jharkhand

Annexure 2.2

**Power Sector Outlay and Expenditure
(Seventh Plan,1985-90)**

1	Power Sector			All Sectors					
	Outlay	Expendi- ture	Col.(3) as % of	Outlay	Expendi- ture	Col.(6) as % of	Col.(2) as % of	Col. (3) as % of	
	(Rs.cr.)	(Rs.cr.)	col.(2)	(Rs.cr.)	(Rs.cr.)	col.(5)	col.(5)	col.(6)	
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	26.20
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	6.10
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

Annexure 2.3

Power Sector Outlay and Expenditure
(Eighth Plan- 1992-97)

(Rs.Crores)

1	Power Sector		Col (3) as % of col (2)	All Sector		Col (6) as % of col (5)	Col (2) as % of col (5)	Col (3) as % of col (6)	
	Outlay	Expend.		Outlay	Expend.				
	2	3	4	5	6	7	8	9	
I. SEBs									
1	Andhra Pradesh	3041	3547	117	10500	13433	128	29	26
2	Assam	1192	678	57	4662	4866	104	26	14
3	Bihar	2121	586	28	13000	5408	42	16	11
4	Delhi	1212	1541	127	4500	6201	138	27	25
5	Gujarat	2635	2503	95	11500	11551	100	23	22
6	Haryana	1702	1198	70	5700	4890	86	30	24
7	Himachal Pra.	500	629	126	2502	3498	140	20	18
8	Jammu & Kashmir	1175	1240	106	4000	4404	110	29	28
9	Karnataka	3025	2958	98	12300	15155	123	25	20
10	Kerala	1226	1617	132	5460	6952	127	22	23
11	Madhya Pradesh	3563	3701	104	11100	12218	110	32	30
12	Maharashtra	4573	5494	120	18520	25336	137	25	22
13	Meghalaya	166	53	32	1029	1070	104	16	5
14	Orissa	2638	1255	48	10000	6998	70	26	18
15	Punjab	2418	3347	138	6570	6831	104	37	49
16	Rajasthan	3200	3079	96	11500	11860	103	28	26
17	Tamil Nadu	3000	3103	103	10200	14023	137	29	22
18	Uttar Pradesh	6975	5423	78	21000	20394	97	33	27
19	West Bengal	3016	2865	95	9760	8368	86	31	34
II. EDs									
1	Arunachal Pradesh	148	332	224	1155	1713	148	13	19
2	Goa	53	65	124	761	843	111	7	8
3	Manipur	185	185	100	979	1219	125	19	15
4	Mizoram	101	152	151	763	1062	139	13	14
5	Nagaland	59	94	159	844	826	98	7	11
6	Pondicherry	102	160	157	400	699	175	26	23
7	Sikkim	133	132	99	550	708	129	24	19
8	Tripura	117	160	137	1130	1377	122	10	12
9	A&N Islands	58	69	119	685	892	130	8	8
10	Chandigarh	55	46	83	400	433	108	14	11
11	Daman & Diu	7	16	210	65	98	151	11	16
12	Dadra & N' Haveli	5	19	379	80	127	158	6	15
13	Lakshadweep	6	7	107	120	140	117	5	5
	Total States & UTs	48408	46251	96	186235	193593	104	26	24
	Central Sector	31182	30426	98	247865	288930	117	13	11
	Total- All India	79589	76677	96	434100	485457	112	18	16

Annexure 2.4

**Power Sector Outlay
(Ninth Plan & Annual Plans)**

(Rs. crore)

	Ninth Plan (1997-2002)		1997 - 98		1998 - 99		1999-2000		2000-01		2001-02		
	Power Sector	All Sector	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	12	13	
I. States													
1	Andhra Pradesh	5749	25150	918	3580	901	4679	868	5480	2671	7708	2330	8378
2	Assam	850	8984	162	1510	162	1650	176	1750	93	1520	127	1710
3	Bihar	2300	16680	103	2268	373	3769	106	3630	102	3100	61	2644
4	Chattisgarh											9	1312
5	Delhi	2985	15541	298	2073	444	2700	475	3000	813	3300	699	3800
6	Gujarat	4000	28000	621	4510	809	5450	806	6550	830	7600	785	7268
7	Haryana	2648	9310	287	1576	505	2260	500	2300	484	1920	432	2150
8	Himachal Pradesh	1020	5700	165	1008	218	1440	246	1600	140	1382	213	1720
9	Jammu & Kashmir	2387	9500	394	1552	336	1900	309	1750	308	1753	340	2050
10	Jharkhand									63	1363	NA	2250
11	Karnataka	3650	23400	608	4154	866	5353	989	5800	754	7250	936	942
12	Kerala	2531	16100	627	2851	650	3100	635	3250	603	3317	499	3015
13	Madhya Pradesh	3464	20075	638	3718	660	3700	891	4004	263	3296	345	3630
14	Maharashtra	5580	36700	1457	8393	1418	11601	1684	12162	1767	11500	1479	10834
15	Meghalaya	312	2501	92	382	56	400	77	465	18	480	60	487
16	Orissa	4623	15000	605	2529	870	3084	1034	3309	743	2665	856	3000
17	Punjab	2927	11500	784	2100	828	2500	620	2680	622	2420	699	3021
18	Rajasthan	4489	22000	702	3514	782	4300	842	4750	994	4146	1278	5031
19	Tamil Nadu	6000	25000	870	4005	903	4500	1034	5250	1034	5700	766	6040
20	Uttar Pradesh	7468	46340	1803	7247	2156	10260	1942	11400	1475	9025	1054	8400
21	Uttaranchal											89	1050
22	West Bengal	5632	16900	1254	3908	1576	4595	2010	5787	879	4027	1542	7186

Annexure 2.4 Contd.

Power Sector Outlay
(Ninth Plan & Annual Plans)

(Rs. crore)

	Ninth Plan (1997-2002)		1997 - 98		1998 - 99		1999-2000		2000-01		2001-02		
	Power Sector	All Sector	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	12	13	
II.EDs													
1	A&N Islands	140	1535	15	262	27	320	30	400	36	416	31	370
2	Arunachal Pra.	451	3570	97	600	73	625	72	665	82	640	86	61
3	Chandigarh	86	685	15	117	12	138	13	151	11	149	13	154
4	Dadra & N' Haveli	48	205	6	35	8	42	10	46	13	50	15	51
5	Daman & Diu	30	165	4	28	8	33	13	37	14	41	14	42
6	Goa	129	1500	20	231	14	291	30	281	30	332	33	460
7	Lakshadweep	15	270	2	46	2	55	2	58	2	64	3	105
8	Manipur	333	2426	43	410	29	425	30	475	34	451	42	520
9	Mizoram	222	1619	36	290	40	333	48	360	45	401	41	410
10	Nagaland	115	2006	21	291	15	300	9	315	16	326	39	405
11	Pondicherry	230	1300	45	220	26	241	21	312	21	312	23	355
12	Sikkim	341	1600	31	220	39	237	42	250	32	250	38	300
13	Tripura	172	2577	29	440	33	440	30	475	16	485	22	560
	Total States & UTs	70926	373839	12752	64066	14841	80720	15594	88742	15007	87389	14996*	98312
	@	71227	366979										
	Central Sector	53299	492221	8079	91839	10905	105187	11231	103521	11611	117334	12846	130181
	Total- All India	124526	859200	20831	155905	25746	185907	26825	192263	26618	204723	27843*	228493

@indicates approved outlays for the 9th Plan.

* Excluding Jharkhand

Annexure 2.5

Share of Power Sector Outlay in Total Outlay
(Ninth Plan & Annual Plans)

(%)

	9th Plan	1997-98	1998-99	1999-00	2000-01	2001-02	
I. States							
1	Andhra Pradesh	22.86	25.63	19.26	15.84	39.90	27.81
2	Assam	9.46	10.73	9.82	10.03	6.11	7.41
3	Bihar	13.79	4.55	9.90	2.92	2.30	2.29
4	Chattisgarh						0.65
5	Delhi	19.21	14.38	16.43	15.83	24.59	18.38
6	Gujarat	14.29	13.77	14.84	12.31	10.70	10.81
7	Haryana	28.45	18.24	22.35	21.74	20.49	20.09
8	Himachal Pradesh	17.89	16.36	15.16	15.36	15.17	12.41
9	Jammu & Kashmir	25.13	25.38	17.70	17.66	17.55	16.61
10	Jharkhand					4.64	NA
11	Karnataka	15.60	14.64	16.18	17.05	13.63	10.47
12	Kerala	15.72	21.99	20.97	19.54	20.24	16.55
13	Madhya Pradesh	17.25	17.17	17.85	22.25	7.96	9.49
14	Maharashtra	15.20	17.37	12.19	13.85	15.37	13.65
15	Meghalaya	12.48	23.99	14.03	16.58	6.52	12.38
16	Orissa	30.82	23.90	28.22	31.26	21.13	28.52
17	Punjab	25.45	37.33	33.12	23.13	27.59	23.14
18	Rajasthan	20.40	19.98	18.19	17.73	25.56	25.39
19	Tamil Nadu	24.00	21.73	20.08	19.69	19.61	12.67
20	Uttar Pradesh	16.12	24.88	21.01	17.03	11.48	12.55
21	Uttaranchal						8.44
22	West Bengal	33.33	32.09	34.31	34.73	21.84	21.45
II. EDs							
1	A&N Islands	9.12	5.87	8.38	7.50	8.66	8.24
2	Arunachal Pradesh	12.63	16.08	11.72	10.83	14.23	13.07
3	Chandigarh	12.54	12.41	8.66	8.71	7.39	8.14
4	Dadra & Nagar Haveli	23.64	15.92	18.44	21.96	26.31	29.02
5	Daman & Diu	18.01	15.78	23.69	35.75	33.80	33.78
6	Goa	8.60	8.62	4.81	10.79	8.65	7.17
7	Lakshadweep	5.56	4.72	4.07	3.96	2.51	2.60
8	Manipur	13.72	10.49	6.82	6.32	8.03	8.00
9	Mizoram	13.69	12.28	12.06	13.42	12.23	10.08
10	Nagaland	5.73	7.29	5.00	2.79	4.77	9.75
11	Pondicherry	17.23	20.56	10.68	6.84	6.50	6.44
12	Sikkim	21.31	14.04	16.27	16.84	12.70	12.74
13	Tripura	6.67	6.51	7.60	6.28	4.08	3.85
	Total States & Uts	18.97	19.90	18.38	17.57	17.59	15.25
	Central Sector	10.89	8.80	10.36	10.85	9.90	9.87
	Total- All India	14.39	13.36	13.84	13.95	13.03	12.19

* Excluding Jharkhand

Annexure 2.6

Outlay on Renovation and Modernisation of Power Sector

(Rs. Crores)

		1992- 97 (8th Plan)	1992- 93	1993- 94	1994- 95	1995- 96	1997- 98	1998- 99	1999- 00	2000- 01
I. SEBs										
1	Andhra Pradesh	38.67	3.87	3.64	7.80	6.46	11.79	20.08	123.03	102.94
2	Assam	95.09	16.11	18.48	55.94	40.00	40.00	59.00	69.36	0.00
3	Bihar	160.27	22.95	56.99	39.20	94.91	15.76	137.90	50.00	0.00
4	Delhi	13.40	5.82	6.20	6.00	6.50	3.00	20.00	9.74	0.00
5	Gujarat	16.51	2.93	4.60	3.68	12.25	12.61	11.90	81.63	75.00
6	Haryana	54.04	24.34	24.34	22.50	18.50	48.25	29.58	29.58	0.00
7	Himachal Pradesh	2.00	0.40	0.40	0.70	0.75	1.00	1.00	1.00	0.00
8	Jammu & Kashmir	24.60	5.00	3.20	7.40	4.61	11.25	5.25	1.76	0.00
9	Karnataka	116.20	16.40	24.11	15.49	15.75	57.92	16.24	44.30	46.50
10	Kerala	58.55	8.30	1.00	5.00	7.00	44.00	10.00	10.00	76.05
11	Madhya Pradesh	37.01	22.01	11.59	55.00	27.25	42.50	11.47	56.40	21.46
12	Maharashtra	183.50	39.00	22.50	65.00	15.00	28.13	17.47	158.00	105.00
13	Meghalaya	6.00	2.00	8.00	10.00	0.00	47.75	11.20	20.00	2.07
14	Orissa	89.71	14.00	5.75	7.50	6.00	7.20	14.00	29.50	61.33
15	Punjab	62.68	17.20	18.00	8.00	8.00	0.00	24.00	18.97	12.00
16	Rajasthan	5.81	16.12	2.50	3.75	9.12	11.94	0.00	2.36	4.69
17	Tamil Nadu	73.30	8.18	10.07	19.76	21.14	21.73	50.48	81.35	166.36
18	Uttar Pradesh	300.00	90.00	75.00	56.75	134.99	165.20	165.00	158.63	109.19
19	West Bengal	34.19	8.35	13.35	18.13	8.37	1.19	45.20	90.00	46.97
II .EDs										
1	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	Manipur	0.00	0.05	0.05	0.34	0.30	0.50	0.00	0.00	0.00
4	Mizoram	3.00	1.00	1.00	1.00	1.75	0.90	0.00	1.00	0.29
5	Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
6	Pondicherry	0.00	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	3.95
8	Tripura	10.20	4.50	5.00	2.60	4.10	4.50	0.00	0.00	0.00

Annexure 2.7

Outlay on Transmission and Distribution

(Rs.Crores)

		1992- 97 (8th Plan)	1992- 93	1993- 94	1994- 95	1995- 96	1997- 98	1998- 99	1999- 00	2000- 01
SEBs										
1	Andhra Pradesh	1000.00	168.00	192.74	160.00	160.00	354.75	467.69	399.28	703.00
2	Assam	355.09	67.77	48.98	83.15	67.95	50.00	60.00	59.74	37.11
3	Bihar	460.00	121.97	120.35	134.01	104.00	38.72	156.73	16.00	97.38
4	Delhi	955.53	200.00	229.20	311.50	356.35	276.00	396.50	301.38	428.45
5	Gujarat	1100.00	200.00	289.00	255.04	280.36	374.69	560.00	501.37	477.95
6	Haryana	783.00	81.00	124.27	50.83	126.30	148.33	386.60	381.60	389.40
7	Himachal Pradesh	120.00	30.00	36.70	55.40	35.00	36.17	38.40	38.40	35.75
8	Jammu & Kashmir	450.00	95.00	94.76	102.04	125.05	162.78	165.72	81.99	109.73
9	Karnataka	973.00	159.00	263.26	211.66	232.00	162.41	248.12	258.97	236.18
10	Kerala	693.00	105.00	139.30	200.00	179.00	335.68	286.35	286.35	383.78
11	Madhya Pradesh	1300.00	265.00	262.00	262.00	304.00	209.80	198.33	352.80	159.66
12	Maharashtra	1530.00	250.00	246.25	383.85	397.71	500.00	504.25	609.94	568.05
13	Meghalaya	61.11	14.12	20.85	21.00	21.59	11.84	7.60	7.60	9.14
14	Orissa	620.00	75.92	71.88	120.31	126.79	149.08	332.96	659.90	280.00
15	Punjab	939.00	172.00	150.00	78.00	100.00	110.00	300.00	314.00	287.37
16	Rajasthan	972.11	129.00	164.30	203.41	279.15	239.83	321.33	321.62	395.60
17	Tamil Nadu	1383.60	170.00	160.00	198.60	239.65	416.12	466.28	529.49	549.77
18	Uttar Pradesh	2800.00	257.72	437.30	770.87	1063.85	715.81	1060.20	971.00	830.82
19	West Bengal	900.00	93.50	52.00	66.34	100.00	267.48	163.00	342.73	352.50
20	Chattisgarh									50.00
21	Jharkhand									24.82
22	Uttaranchal									
EDs										
1	Arunachal Pradesh	68.00	10.00	13.80	17.00	29.50	21.30	3.12	30.00	NA
2	Goa	46.06	9.28	11.60	16.74	16.50	18.73	13.80	29.40	29.90
3	Manipur	77.00	19.50	21.58	24.68	30.23	24.11	17.00	16.79	22.43
4	Mizoram	43.00	11.41	8.35	6.03	9.31	17.30	22.62	25.36	28.55
5	Nagaland	28.10	7.26	4.06	4.00	4.76	3.20	3.43	0.00	NA
6	Pondicherry	38.22	10.70	12.90	17.15	23.91	15.69	13.20	18.07	19.24
7	Sikkim	40.00	6.00	6.00	10.00	10.50	11.66	12.45	15.51	12.29
8	Tripura	40.00	7.50	7.50	4.95	14.83	14.66	20.43	20.00	9.33

Annexure 2.8

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
4 Delhi	5.60	1.01	92.62	0.42	0.35
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					
1 Arunachal Pradesh	37.82	0.00	22.07	27.15	12.95
2 Goa	0.05	0.00	94.22	5.23	0.50
3 Manipur	4.47	1.16	56.07	5.81	32.49
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
12 Lakshadweep	100.00	0.00	0.00	0.00	0.00
13 A & N Islands	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 UTs	46.99	4.55	37.06	2.40	9.01
All India Average	56.48	2.78	30.37	4.71	5.66

Annexure 2.9

**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
4	Delhi	5.75	4.51	89.40	0.10	0.24
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						
1	Arunachal Pradesh	14.15	0.00	4.26	63.84	17.75
2	Goa	0.71	0.00	98.57	0.71	0.00
3	Manipur	37.93	0.00	58.62	1.72	1.72
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
12	Lakshadweep	100.00	0.00	0.00	0.00	0.00
13	A & N Islands	44.74	0.00	55.26	0.00	0.00
	Average of E.Ds	27.99	2.03	45.56	17.46	6.96
	Average of States and 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
4	Delhi	34.19	2.05	63.45	0.09	0.22
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						
1	Arunachal Pradesh	14.65	0.00	41.66	6.19	37.49
2	Goa	0.33	0.00	96.93	2.08	0.66
3	Manipur	2.07	0.00	55.98	0.89	41.07
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
12	Lakshadweep	100.00	0.00	0.00	0.00	0.00
13	A & N Islands	86.82	0.00	8.95	4.23	0.00
	Average of Eds	20.74	4.49	55.23	4.77	14.76
	Average of States & UTs	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
(2000-01)**

(%)

		Generation	R&M	T&D	Misc.	R.E.
SEBs						
1	Andhra Pradesh	14.40	10.51	71.75	0.71	2.64
2	Assam	57.93	0.00	39.97	0.59	1.51
3	Bihar	4.88	0.00	95.12	0.00	0.00
4	Delhi	45.81	0.00	52.73	1.36	0.10
5	Gujarat	25.36	7.65	57.58	1.87	6.14
6	Haryana	12.86	0.00	80.45	0.00	6.68
7	Himachal Pradesh	62.27	0.00	25.47	2.49	9.76
8	Jammu & Kashmir	59.31	0.00	35.68	0.12	4.90
9	Karnataka	51.19	4.75	31.32	3.52	7.80
10	Kerala	11.51	7.76	59.95	4.95	11.72
11	Madhya Pradesh	22.21	2.19	60.77	0.26	8.59
12	Maharashtra	54.37	10.72	32.14	1.70	5.85
13	Meghalaya	24.73	0.21	22.61	1.24	46.30
14	Orissa	30.19	6.26	51.96	0.42	6.05
15	Punjab	38.24	1.22	46.17	1.61	12.05
16	Rajasthan	46.43	0.48	39.81	0.20	13.08
17	Tamil Nadu	15.97	16.98	53.17	2.70	12.07
18	Uttar Pradesh	19.77	11.14	56.35	0.14	16.34
19	West Bengal	47.99	4.79	25.00	0.77	22.91
20	Jharkhand	0.00	2.04	49.02	1.96	29.41
21	Chattisgarh	2.70	0.66	67.14	0.73	11.98
	Average of SEBs	34.61	6.24	47.65	1.37	10.12
EDs						
1	Arunachal Pradesh	NA	NA	NA	NA	NA
2	Goa	0.33	0.00	99.67	0.00	0.00
3	Manipur	0.64	0.00	66.74	0.00	32.62
4	Mizoram	17.49	0.03	62.99	12.47	6.42
5	Nagaland	NA	NA	NA	NA	NA
6	Pondicherry	0.00	0.00	90.20	9.80	0.00
7	Sikkim	30.54	0.40	38.70	15.18	3.15
8	Tripura	22.58	0.00	59.01	0.00	18.41
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
12	Lakshadweep	100.00	0.00	0.00	0.00	0.00
13	A & N Islands	43.39	0.00	54.08	2.53	0.00
	Average of EDs	15.51	0.43	70.53	5.30	6.99
	Average of States & UTs	34.25	6.16	48.08	1.45	10.06
	Central Sector	63.33	0.00	24.42	12.25	0.00
	All India Average	48.79	6.16	36.25	6.85	10.06

**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
4	Delhi	37.39	1.34	59.30	1.98	0.00
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						
1	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00
2	Goa	1.72	0.00	94.52	3.76	0.00
3	Manipur	51.66	0.33	30.03	6.01	11.96
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
12	Lakshadweep	79.95	0.00	13.32	6.73	0.00
13	A & N Islands	50.00	0.00	36.43	13.57	0.00
	Average of Eds	28.76	1.57	40.68	4.55	4.85
	Average of States & UTs	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

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 include 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.

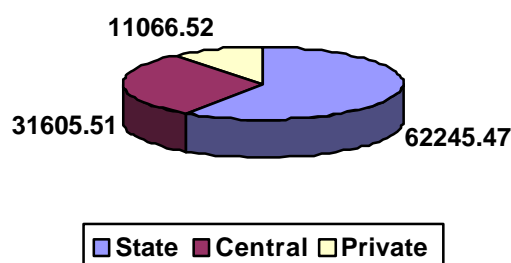
3.2 Installed Generation Capacity

The total installed capacity of the electricity supply undertakings (Utilities) in the country increased from 101660.2 MW at the end of March, 2001 to 104917.50 MW at the end of March, 2002. In terms of fuel mix, coal based (including lignite) generation capacity continues to remain the principal source accounting for 59% of total installed capacity. The share of Gas based capacity has been progressively increasing over the years and currently stands at about 10.6% of the total installed capacity as compared to less than 1% in early eighties. The hydro share in the total installed capacity has been declining over the years and currently is at about 25.03%. Table 3.1 shows the position regarding ownership and mix of installed capacity. Out of the total installed generation capacity, 59.33% is owned by the States, 30.12% by the Centre and 10.55% by the private sector as shown in Figure 3.1.

Table 3.1
Ownership and Mode-wise Pattern of Installed Capacity (MW)
As on 31-3-2002

Owner ship/Mode	Hydel	Steam	Gas	Diesel	Wind	Nuclear	Total	% Share
State	22636.02	36302.00	2661.70	582.89	62.86	0.00	62245.47	59.33
Central	3049.00	21417.51	4419.00	0.00	0.00	2720.00	31605.51	30.12
Private	576.20	4411.38	4082.40	551.94	1444.60	0.00	11066.52	10.55
Total	26261.22	62130.89	11163.10	1134.83	1507.46	2720.00	104917.50	100.00
% of Installed Capacity	25.03	59.22	10.64	1.08	1.44	2.59	100.00	

Figure 3.1
Ownership-wise Pattern of Installed Capacity as on March 2002



3.2.1 Capacity Addition

Table 3.2
Addition to Installed Capacity (MW)

	9 th Plan Target	1997-98 Actual	1998-99 Actual	1999-2000 Actual	2000-01 Actual	2001-02 Actual	9 th Plan Actual
I. Mode-wise							
Hydel	9819.7	233.0	542.5	1371.5	1285.0	1106.2	4538.2
Thermal	29545.5	2993.5	3699.5	2721.0	2173.9	2009.0	13596.9
Nuclear	880.0	0.0	0.0	440.0	440.0	0.0	880.0
Total	40245.2	3226.5	4242.0	4532.5	3898.9	3115.2	19015.1
II. Ownership							
State	10747.7	1676.0	1675.4	2329.1	2375.7	1393.9	9450.1
Central	11909.0	333.0	991.6	1615.4	659.0	905.0	4504.0
Private	17588.5	1217.5	1575.0	588.0	864.2	816.3	5061.0
Total	40245.2	3226.5	4242.0	4532.5	3898.9	3115.2	19015.1

The Ninth Plan envisaged a capacity addition of 40245.2 MW, comprising 24.4% of hydro capacity and the balance 75.6% thermal capacity addition including nuclear power. The expected contribution from the State sector, Central sector and Private sector in capacity addition was 26.7%, 29.6% and 43.7% respectively. The achievements of State, Central and Private sectors as compared to their targets is 87.9%, 37.8% and 28.8% respectively. Table 3.3 gives details of target (T), mid-term assessment (MT) and actual (A) for the 9th Plan capacity addition programme. The major shortfall is in the Central Sector and Private Sector. Private sector projects have not come up mainly because of the poor financial condition of the SEBs. While the average capacity addition target per year during 9th Plan works out to 8049 MW, the actual achievement during 1997-98, 1998-99, 1999-2000, 2000-01 and 2001-02 was 3226.5 MW, 4242 MW, 4532.5MW, 3898.9 MW and 3115.2 MW respectively.

Table 3.3
Capacity Addition During the 9th Plan - Target (T)/
Mid Term (MT)/ Achievement (A)

(MW)

	Centre			State			Private			Total		
	T	MT	A	T	MT	A	T	MT	A	T	MT	A
Thermal	7574	3294	3084	4933	4797	5538	17039	7387	4975	29546	15477	13597
Hydro	3455	2540	540	5815	5096	3912	550	316	86	9820	7952	4538
Nuclear	880	880	880	0	0	0	0	0	0	880	880	880
Total	11909	6714	4504	10748	9893	9450	17589	7703	5061	40245	24309	19015

3.2.2 Plant Availability and Capacity Utilisation (PLF)

The operational performance of utilities in terms of plant availability as well as plant utilisation has been improving over the years. Table 3.4 indicates the improvement in the All-India plant availability of thermal units during the period 1991-92 to 2000-01. State-wise position is given in Annexure 3.7.

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
2000-01	80.5

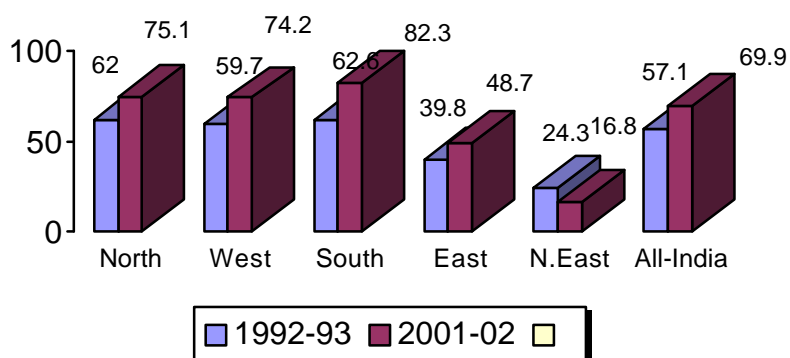
While the plant availability improved from 72.8% in 1991-92 to 80.5% in 2000-01, the average PLF of the thermal plants has also shown a distinct improvement in this period. The average PLF increased from 55.3% in 1991-92 to 69.9% in 2001-02. The gap between the plant availability and plant load factor (PLF) indicates that though the 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 3.10). 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	2000-2001	2001-2002
I. Ownership										
State	54.1	56.6	55.0	58.1	60.3	60.9	60.7	63.7	65.6	67.0
Central	62.7	69.8	69.2	71.0	71.1	70.4	71.1	73.8	74.3	74.3
Private	58.8	57.0	65.8	72.3	71.2	71.2	68.0	68.9	73.1	74.7
II. Region										
Northern	62.0	63.9	59.1	62.1	64.8	66.7	67.2	70.9	73.1	75.1
Western	59.7	63.4	63.8	68.1	70.2	70.3	70.7	72.3	73.4	74.2
Southern	62.6	68.3	69.1	74.7	75.8	77.0	75.4	79.6	82.0	82.3
Eastern	39.8	44.8	43.7	42.7	42.2	43.0	44.1	46.1	47.9	48.7
N. Eastern	24.3	19.9	26.8	28.6	27.1	21.3	18.8	18.2	18.5	16.8
All-India	57.1	61.0	60.06	3.0	64.4	64.7	64.6	67.3	69.0	69.9

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 1992-93. However, PLF of thermal stations in the Northern, Eastern and North Eastern regions, particularly Delhi, Bihar, Jharkhand, West Bengal and Assam continues to be less than the national average. Northern, Western and Southern regions generally continued to have higher PLF as compared to the All-India average. The Figure 3.2 illustrates the region-wise improvement in PLF from 1992-93 to 2001-02.

Figure 3.2
PLF of Thermal Plants(%)



3.3 Generation and Sales

Table 3.6
Details of Generation and Sales of SEBs and EDs

	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)	1999-2000 (Prov.)	2000-01 (RE)	2001-02 (AP)
Gross Generation(Mkwh)	252016	243611	258283	260402	275932	284722
Auxiliary Consumption(%)	6.56	7.14	7.03	7.19	7.18	7.05
Power Purchase(Mkwh)	166620	176342	198502	267655	295371	325071
Net Availability at Busbar(Mkwh)	360509	376707	402759	431420	471020	504378
T & D Losses(%)	24.6	24.0	24.9	30.8	29.9	27.8
Sales(Mkwh)	268031	283650	296136	298649	314835	340061

As the Table above shows, out of the total electricity generated, nearly 7% is used for auxiliary consumption and 30-31% is lost in the Transmission and Distribution. These T&D losses include theft as well as commercial losses. It is stated that only about 50-60% of energy sales is 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. Annexures 3.15 to 3.37 present a detailed account of generation, sales and related data in respect of the SEBs and EDs from 1993-94 to 2001-02.

3.4 Auxiliary Consumption

The auxiliary consumption reported here is a weighted average of thermal and hydel plants in the State sector. It has remained in the range of 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 3.17.

3.5 T & D Losses

The T&D losses as indicated in Annexure 3.25 and 3.26 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. The T&D losses at the All India level has started increasing after the initiation of reforms and are reported to be more than 131 billion Kwh annually during the last three years. In percentage terms, the T&D losses are reported to have increased from 19.8% in 1992-93 to 31% in 1999-2000. The revised estimates for 2000-01 indicate these losses at 29.9% and are expected to decline to 27.8% in 2001-02. 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,

Karnataka, Uttar Pradesh, West Bengal and Rajasthan have also reported higher T&D losses after the start of the reform process. It is stated that states are now able to make realistic assessment of T&D losses in the power system, which were earlier partly camouflaged as agricultural consumption.

However, there are considerable inter-State variations in the losses reported. Delhi and J&K has the highest reported T&D losses i.e., 45% and 47% followed by, Uttar Pradesh at 39%, Karnataka at 36%, Haryana and Andhra Pradesh at 33% and Assam, M.P & West Bengal at more than 30%. On the other hand, the T&D losses in Himachal Pradesh, Kerala, Punjab and Tamil Nadu are lower than the All India average.

3.6 Power Purchase

The States purchase power from Public sector undertakings (PSUs) in the Central sector, private generators (wherever such agencies exist) and from neighboring states to meet their total requirements. The purchase of power as a proportion of total availability of electricity for all the utilities taken together has increased sharply from a level of 46.2% in 1996-97 to 64.4% in 2001-02 (AP). This steep rise could be partly attributed to the unbundling, In some states during the last few years. As a result of the unbundling, separate entities have been set up for generation, transmission and distribution functions. While purchase of power as a proportion of total sales has increased, the share of power purchased from Central sector has been declining. This could be partly attributed to the purchase of power from their own generating companies set up after reforms and unbundling and partly because of improvement in PLF and commissioning of private sector projects in few states.

Detailed analysis in this report (Annexures 3.19 to 3.24) also highlights total purchase from Central Sector and other sources, purchase as a percentage of total sales, purchase from Central sector as a percentage of total purchase and purchase from Central sector as percentage of total power availability. 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
1996-97	46.2	73.0	33.5
1997-98	46.8	74.4	34.8
1998-99	49.3	66.1	32.6
1999-2000 (Provisional)	62.0	53.1	32.9
2000-01 (RE)	62.7	58.1	36.4
2001-02 (AP)	64.4	57.8	37.2

3.7 Electricity Sales

The sales of electricity increased from 213 Bkwh in 1992-93 to 314.84 Bkwh in 2000-01 (R.E) representing annual average growth rate of 5%. Table 3.8 shows the share of various categories of consumers in total sales by the SEBs and EDs from 1992-93 to 2001-02.

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

Category	1992-93 (Actual)	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)	1999-2000 (Provisional)	2000-01 (RE)	2001-02 (AP)*
Domestic	16.4	18.1	18.6	19.5	20.6	21.3	21.3
Commercial	4.0	5.1	4.7	4.6	5.0	5.2	5.1
Agriculture	29.9	30.8	31.8	32.3	29.2	29.1	28.8
Industry	35.5	32.9	31.8	30.2	30.3	30.5	29.2
Traction	1.8	2.1	2.2	2.1	2.3	2.3	2.2
Outside State	2.1	1.4	1.6	1.9	1.5	1.2	1.2
Others	10.3	9.6	9.3	9.4	11.1	10.4	9.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Total does not tally to 100 as the consumer category-wise sales in case of Orissa is not available.

It is evident from the above that share of domestic consumption in the total sales of electricity has been increasing over the years and has increased from a level of about 16.4% in 1992-93 to 21.30% in 2001-02. The share of agriculture sector in the overall sales appears to be declining from a level of about 32% in 1998-99 to 28.78% in 2001-02 (AP). This could partly be due to the realistic assessment of agricultural consumption and higher reported T&D losses by the reforming states. However, these could be rough estimates, as agricultural consumers in most of the states are not metered. Details of consumer category-wise sales for the years 1996-97 to 2000-01 is given in Annexures 3.28 to 3.33.

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 3.2% of the total revenue realisation during 1999-2000(Provisional). Revenue realisation from agriculture sector is likely to improve to about 5%

in 2001-02. This could be attributed to the declining trend in the percentage share of agricultural consumption in the overall sales as well as increase in average tariff charged to the agricultural consumers because of the recent tariff awards by the SERCs in nine reforming states. While the domestic and agriculture sectors taken together accounted for nearly 50% of the total sales of the electricity the revenue realisation from these sectors is only about 22% of the sales revenue. On the other hand, industry and commercial sectors accounted for around 80% sale revenue while 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 3.35 and 3.36.

3.9 Per Capita Consumption

The per capita consumption of electricity in India increased from 178 Kwh in 1985-86 to 355 Kwh in 1999-2000 registering an annual growth rate of 5.1%. The per capita electricity consumption in India is one of the lowest as compared to per capita consumption of electricity in different countries 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
Per Capita Consumption Comparison

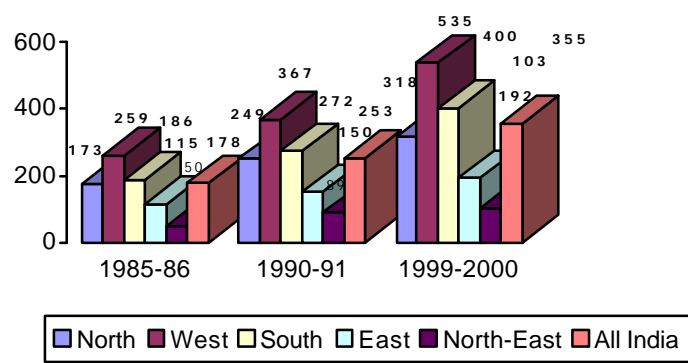
S.No	Country	Per Capita Electricity Consumption (Kwh)
1.	India	348
2.	Brazil	1783
3.	Egypt	787
4.	China	719
5.	U.K	5843
6.	Australia	6606
7.	U.S.A	8747

There are large inter-State and inter-regional variations in the per capita electricity consumption. As against the All-India per capita consumption of 355 Kwh in 1999-2000, the per capita consumption in the Eastern and North Eastern region has been only 192 Kwh and 103 Kwh respectively. On the other hand, Western, Southern and Northern regions have per capita electricity consumption of 535 Kwh, 400 Kwh and 318 kwh respectively. The inter-State trends show greater disparities between the States. States like Punjab and Delhi have per capita electricity consumption of 921 Kwh and 653 Kwh, whereas it is about 69 Kwh in States like Manipur and Arunachal Pradesh and about 141 Kwh in Bihar. The inter-regional variations in per capita consumption of electricity are shown in figure 3.3 and in Table 3.10. The Inter-State variation can be seen in Annexure 3.38.

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
1999-2000	318	535	400	192	103	355

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 2002 indicated peak deficit of 12.6% and energy deficit of 7.5%. The states in the Eastern Region have minimal peak deficit of 3.7%. The Western and Southern Regions have maximum peak deficit of 16.91% and 15.61% as compared to other regions. Details can be seen from Annexure 3.39.

3.11 Rural Electrification:

Out of 5,87,258 total inhabited villages in the country as per 1991 Census, about 86% of the villages are declared to be electrified by March, 2001 on the basis of the existing definition. As per the present estimates, around 80,000 villages in the country are yet to be electrified even on the basis of the current definition of village electrification. Nine States have declared 100% electrification of their villages. The villages yet to be electrified are mostly located in Assam, Arunachal Pradesh, Bihar, Jharkhand, Madhya Pradesh, Meghalaya, Orissa, Rajasthan, Uttar Pradesh, Uttaranchal and West Bengal. Out of these 80,000 villages yet to be electrified, it may be feasible to electrify about 62,000 villages through conventional grid expansion. The balance 18,000 villages are located in remote areas, hilly terrains, islands, deserts and are also thinly populated. Such villages may be electrified more economically through decentralised and non-conventional energy sources like solar, wind, small hydro and biomass.

The Tenth Plan proposes to cover all 62,000 villages that can be electrified through grid extension. The balance 18,000 remote villages are to be electrified by 2011-12 through use of non conventional technologies. A survey to identify the villages is required to be carried out. In order to facilitate the programme the funds would be made available under Pradhan Mantri Gramodaya Yojana (PMGY), Kutir Jyoti Programme, Minimum Need Programme and Accelerated Rural Electrification Programme funded through the RIDF. In addition separate fund allocation has been made in the budget of MNES for electrification of remote villages.

Annexure 3.1

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 :		2704.50	100.00	0.00	0.00	0.00	0.00	2704.50

Contd.

Annexure 3.1

Installed Capacity (MW)

As on 31st March, 1997							
	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
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. ManiyarHEP(Kerala)	12.00	100.00	0.00	0.00	0.00	0.00	12.00
12. Jagurapadu CCGT (A.P)	0.00	0.00	158.40	100.00	0.00	0.00	158.40
13. 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):	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

Annexure 3.2

Installed Capacity (MW)

		As on 31st March, 1998						
		Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs								
1.	Andhra Pradesh	2656.94	46.09	3051.50	52.94	55.79	0.97	5764.23
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	653.60	100.00	0.00	0.00	653.60
5.	Gujarat	487.00	10.38	4039.28	86.07	166.91	3.56	4693.19
6.	Haryana	883.90	49.65	896.42	50.35	0.00	0.00	1780.32
7.	Himachal Pradesh	299.17	99.96	0.13	0.04	0.00	0.00	299.30
8.	Jammu & Kashmir	190.19	50.84	183.94	49.16	0.00	0.00	374.13
9.	Karnataka	2447.55	71.31	967.92	28.20	17.01	0.50	3432.48
10.	Kerala	1676.50	95.34	80.00	4.55	2.02	0.11	1758.52
11.	Madhya Pradesh	847.91	21.87	3017.50	77.82	12.29	0.32	3877.70
12.	Maharashtra	1367.22	16.49	6917.00	83.44	5.60	0.07	8289.82
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	48.37	1920.00	51.63	0.00	0.00	3718.94
16.	Rajasthan	971.08	48.93	1013.50	51.07	0.00	0.00	1984.58
17.	Tamil Nadu	1955.70	33.94	3100.00	53.79	707.29	12.27	5762.99
18.	Uttar Pradesh	1504.75	24.39	4664.00	75.61	0.00	0.00	6168.75
19.	West Bengal	127.21	4.36	2787.20	95.64	0.00	0.00	2914.41
Sub-total :(I)		18849.59	33.70	36122.73	64.57	968.01	1.73	55940.33
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.	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	42.01	124.00	57.94	0.11	0.05	214.02
III.BBMB :		2704.50	100.00	0.00	0.00	0.00	0.00	2704.50

Annexure 3.2

Installed Capacity (MW)

As on 31st March, 1998							
	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
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
12. Jagurapadu CCGT (A.P)	0.0	0.0	235.4	100.0	0.0	0.0	235.4
13. 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)						
		Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs								
1.	Andhra Pradesh	2656.9	46.0	3052.0	52.9	61.8	1.1	5770.7
2.	Assam	2.0	0.3	595.7	99.7	0.0	0.0	597.7
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	547.0	10.7	4380.3	86.0	166.9	3.3	5094.2
6.	Haryana*	48.0	5.1	896.4	94.9	0.0	0.0	944.4
7.	Himachal Pradesh*	299.4	100.0	0.1	0.0	0.0	0.0	299.5
8.	Jammu & Kashmir	189.0	50.7	183.9	49.3	0.0	0.0	372.9
9.	Karnataka	2627.6	66.4	1309.9	33.1	19.6	0.5	3957.1
10.	Kerala	1690.5	94.3	100.0	5.6	2.0	0.1	1792.5
11.	Madhya Pradesh	847.9	20.7	3227.5	78.8	18.4	0.5	4093.8
12.	Maharashtra	1625.2	19.0	6917.0	80.7	28.9	0.3	8571.2
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 *	545.1	20.4	2130.0	79.6	0.0	0.0	2675.1
16.	Rajasthan *	356.3	22.0	1263.5	78.0	0.0	0.0	1619.8
17.	Tamil Nadu	1963.2	33.9	3100.0	53.6	725.1	12.5	5788.3
18.	Uttar Pradesh	1510.8	24.8	4574.0	75.2	0.0	0.0	6084.8
19.	West Bengal	141.5	4.9	2757.5	95.1	0.0	0.0	2899.0
Sub-total :(I)		16683.8	30.3	37377.0	67.9	1023.9	1.9	55084.7
II.EDs								
1.	Arunachal Pradesh	29.6	65.0	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	21.6	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.	Pondicherry	0.0	0.0	22.9	100.0	0.0	0.0	22.9
8.	Sikkim	32.9	86.8	5.0	13.2	0.0	0.0	37.9
9.	Tripura	16.0	18.8	69.4	81.2	0.0	0.0	85.4
Sub-total :(II)		89.9	37.9	146.9	62.0	0.1	0.0	236.9
III.BBMB :		2704.5	100.0	0.0	0.0	0.0	0.0	2704.5

Note :- * Excluding the share from BBMB

Annexure 3.3

Installed Capacity (MW)

As on 31st March, 1999 (Provisional)							
	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
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	40.0	375.0	60.0	0.0	0.0	625.0
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	17744.6	100.0	0.0	0.0	17744.6
Sub-total :(IV)	2509.0	8.8	25862.1	91.2	0.0	0.0	28371.1
V.PRIVATE SECTOR							
1. AECO (Gujarat)	0.0	0.0	549.0	100.0	0.0	0.0	549.0
2. CESC (W.Bengal)	0.0	0.0	1195.0	100.0	0.0	0.0	1195.0
3. Deshargarh SC (W.B)	0.0	0.0	46.4	100.0	0.0	0.0	46.4
4. TESCO (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)-Guj.	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
12. Jagurapadu CCGT (A.P)	0.0	0.0	235.4	100.0	0.0	0.0	235.4
13. Godavari CCGT (A.P)	0.0	0.0	208.0	100.0	0.0	0.0	208.0
14. Banaskandi GBPP (Assam)	0.0	0.0	15.0	100.0	0.0	0.0	15.0
15. Adamtilla GBPP (Assam)	0.0	0.0	9.5	100.0	0.0	0.0	9.5
17. Basin Bridge DGPP (T.N)	0.0	0.0	200.0	100.0	0.0	0.0	200.0
18. Dabhol CCGT (Maha.)	0.0	0.0	740.0	100.0	0.0	0.0	740.0
Sub-total :(V)	456.0	6.7	6365.5	93.3	0.0	0.0	6821.5
VI.OTHERS (Islands):	0.0	0.0	35.3	100.0	0.0	0.0	35.3
Grand Total :	22443.2	24.1	69786.7	74.8	1024.0	1.1	93254.0

Annexure 3.4

Installed Capacity (MW)

		As on 31st March, 2000 (Provisional)						
		Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs								
1.	Andhra Pradesh	2671.9	46.0	3051.5	52.5	88.0	1.5	5811.5
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	617.0	100.0	0.0	0.0	617.0
5.	Gujarat	547.0	10.6	4439.3	86.1	166.9	3.2	5153.2
6.	Haryana	48.0	5.1	896.4	94.9	0.0	0.0	944.4
7.	Himachal Pradesh	299.4	100.0	0.1	0.0	0.0	0.0	299.5
8.	Jammu & Kashmir	225.2	55.0	183.9	45.0	0.0	0.0	409.1
9.	Karnataka	2667.6	65.2	1387.9	33.9	34.2	0.8	4089.7
10.	Kerala	1740.5	86.4	273.0	13.5	2.0	0.1	2015.5
11.	Madhya Pradesh	870.4	20.1	3437.5	79.4	22.6	0.5	4330.5
12.	Maharashtra	2399.2	25.7	6872.0	73.5	79.3	0.8	9350.5
13.	Meghalaya	186.7	98.9	2.1	1.1	0.0	0.0	188.8
14.	Orissa	1571.9	78.9	420.0	21.1	1.1	0.1	1993.0
15.	Punjab	545.1	20.4	2130.0	79.6	0.0	0.0	2675.1
16.	Rajasthan	356.3	19.0	1513.5	80.9	2.0	0.1	1871.8
17.	Tamil Nadu	1993.2	34.1	3100.0	53.0	758.4	13.0	5851.6
18.	Uttar Pradesh	1533.3	25.2	4542.0	74.8	0.0	0.0	6075.3
19.	West Bengal	164.0	3.8	2967.3	94.8	0.0	0.0	3131.4
Sub-total :(I)		17996.6	31.3	38242.3	66.6	1154.6	2.0	57393.4
II.EDs								
1.	Arunachal Pradesh	29.6	65.0	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	21.6	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.	Pondicherry	0.0	0.0	32.5	100.0	0.0	0.0	32.5
8.	Sikkim	32.9	86.8	5.0	13.2	0.0	0.0	37.9
9.	Tripura	16.0	18.8	69.4	81.2	0.0	0.0	85.4
Sub-total :(II)		89.9	36.5	156.5	63.5	0.1	0.0	246.5
III.BBMB :		2704.5	100.0	0.0	0.0	0.0	0.0	2704.5

Installed Capacity (MW)

As on 31st March, 2000 (Provisional)							
	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
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	2680.0	100.0	0.0	0.0	2680.0
3. DVC	144.0	5.0	2727.5	95.0	0.0	0.0	2871.5
4. NEEPCO	250.0	40.0	375.0	60.0	0.0	0.0	625.0
5. NLC	0.0	0.0	2070.0	100.0	0.0	0.0	2070.0
6. NHPC	2175.0	100.0	0.0	0.0	0.0	0.0	2175.0
7. NTPC	0.0	0.0	18860.0	100.0	0.0	0.0	18860.0
Sub-total :(IV)	2569.0	8.6	27432.5	91.4	0.0	0.0	30001.5
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	1195.0	100.0	0.0	0.0	1195.0
3. Deshargarh SC (W.B)	0.0	0.0	46.4	100.0	0.0	0.0	46.4
4. TESCO (Maharashtra)	426.0	24.3	1330.0	75.7	0.0	0.0	1756.0
5. BSES (Maharashtra)	0.0	0.0	545.0	100.0	0.0	0.0	545.0
6. ESSAR POWER (Gujarat)	0.0	0.0	515.0	100.0	0.0	0.0	515.0
7. TORRENT (Paguthan)-Guj.	0.0	0.0	655.0	100.0	0.0	0.0	655.0
8. GIPCL Baroda CCGT (Guj)	0.0	0.0	417.0	100.0	0.0	0.0	417.0
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
12. Jagurapadu CCGT (A.P)	0.0	0.0	235.4	100.0	0.0	0.0	235.4
13. Godavari CCGT (A.P)	0.0	0.0	208.0	100.0	0.0	0.0	208.0
14. Sunderban (W.B)	0.0	0.0	0.1	100.0	0.0	0.0	0.1
15. Eloor CCGT (Kerala)	0.0	0.0	90.0	100.0	0.0	0.0	90.0
16. Banaskandi GBPP (Assam)	0.0	0.0	15.0	100.0	0.0	0.0	15.0
17. Adamtilla GBPP (Assam)	0.0	0.0	9.5	100.0	0.0	0.0	9.5
18. Salgaokar CCGT (Goa)	0.0	0.0	48.0	100.0	0.0	0.0	48.0
29. Basin Bridge DGPP (T.N)	0.0	0.0	200.0	100.0	0.0	0.0	200.0
20. Dabhol CCGT (Maha.)	0.0	0.0	740.0	100.0	0.0	0.0	740.0
21. Torangallu CCGT	0.0	0.0	260.0	100.0	0.0	0.0	260.0
Sub-total :(V)	456.0	6.1	6999.6	93.9	0.0	0.0	7455.6
VI.OTHERS (Islands):	0.0	0.0	35.3	100.0	0.0	0.0	35.3
Grand Total :	23816.0	24.3	72866.1	74.5	1154.7	1.2	97836.8

Annexure 3.5

Installed Capacity (MW)

		As on 31st March, 2001 (Provisional)						
		Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs								
1.	Andhra Pradesh	2821.9	48.0	3051.5	51.9	3.1	0.1	5876.5
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	617.0	100.0	0.0	0.0	617.0
5.	Gujarat	547.0	11.9	4019.3	87.7	17.4	0.4	4583.6
6.	Haryana	48.0	4.2	1106.4	95.8	0.0	0.0	1154.4
7.	Himachal Pradesh	323.7	100.0	0.1	0.0	0.0	0.0	323.8
8.	Jammu & Kashmir	232.7	55.9	183.9	44.1	0.0	0.0	416.6
9.	Karnataka	2727.6	66.2	1387.9	33.7	2.6	0.1	4118.0
10.	Kerala	1795.0	88.4	234.6	11.5	2.0	0.1	2031.6
11.	Madhya Pradesh	870.4	20.2	3437.5	79.8	0.6	0.0	4308.5
12.	Maharashtra	2400.2	24.6	7337.0	75.3	6.4	0.1	9743.6
13.	Meghalaya	186.7	98.9	2.1	1.1	0.0	0.0	188.8
14.	Orissa	1877.0	81.7	420.0	18.3	1.1	0.0	2298.1
15.	Punjab	1145.1	35.0	2130.0	65.0	0.0	0.0	3275.1
16.	Rajasthan	355.7	19.0	1513.5	80.8	4.3	0.2	1873.5
17.	Tamil Nadu	1995.2	38.2	3207.0	61.4	19.8	0.4	5222.0
18.	Uttar Pradesh	1533.3	27.2	4102.0	72.8	0.0	0.0	5635.3
19.	West Bengal	164.7	3.8	3417.1	95.4	0.0	0.0	3581.8
Sub-total :(I)		19201.0	31.3	38575.6	66.7	57.2	0.1	57833.8
II.EDs								
1.	Arunachal Pradesh	29.6	65.0	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	3.2	25.4	9.4	74.6	0.0	0.0	12.6
5.	Mizoram	8.3	22.2	28.9	77.8	0.0	0.0	37.2
6.	Nagaland	4.2	66.0	2.2	34.0	0.0	0.0	6.4
7.	Pondicherry	0.0	0.0	32.5	100.0	0.0	0.0	32.5
8.	Sikkim	32.9	86.8	5.0	13.2	0.0	0.0	37.9
9.	Tripura	16.0	18.8	69.4	81.2	0.0	0.0	85.4
Sub-total :(II)		94.2	36.3	165.2	63.7	0.1	0.0	259.5
III.BBMB :		2704.5	100.0	0.0	0.0	0.0	0.0	2704.5

Annexure 3.5

Installed Capacity (MW)

As on 31st March, 2001 (Provisional)							
	Hydel	(%)	Thermal	(%)	Wind	(%)	Total
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	2860.0	100.0	0.0	0.0	2860.0
3. DVC	144.0	5.0	2727.5	95.0	0.0	0.0	2871.5
4. NEEPCO	325.0	46.4	375.0	53.6	0.0	0.0	700.0
5. NLC	0.0	0.0	2070.0	100.0	0.0	0.0	2070.0
6. NHPC	2175.0	100.0	0.0	0.0	0.0	0.0	2175.0
7. NTPC	0.0	0.0	19004.0	100.0	0.0	0.0	19004.0
Sub-total :(IV)	2644.0	8.7	27756.5	91.3	0.0	0.0	30400.5
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	1155.1	100.0	0.0	0.0	1155.1
3. Deshargarh SC (W.B)	0.0	0.0	46.4	100.0	0.0	0.0	46.4
4. Teco (Maharashtra)	447.0	26.4	1246.0	73.6	0.0	0.0	1693.0
5. BSES (Maharashtra)	0.0	0.0	584.0	100.0	0.0	0.0	584.0
6. ESSAR POWER (Gujarat)	0.0	0.0	515.0	100.0	0.0	0.0	515.0
7. TORRENT (Paguthan)-Guj.	0.0	0.0	655.0	100.0	0.0	0.0	655.0
8. GIPCL Baroda CCGT (Guj)	0.0	0.0	417.0	100.0	0.0	0.0	417.0
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
12. Jagurapadu CCGT (A.P)	0.0	0.0	235.4	100.0	0.0	0.0	235.4
13. Godavari CCGT (A.P)	0.0	0.0	208.0	100.0	0.0	0.0	208.0
14. Sunderban (W.B)	0.0	0.0	0.1	100.0	0.0	0.0	0.1
15. BSES (Eloor) CCGT (Kerala)	0.0	0.0	174.0	100.0	0.0	0.0	174.0
16. Banaskandi GBPP (Assam)	0.0	0.0	15.0	100.0	0.0	0.0	15.0
17. Adamtilla GBPP (Assam)	0.0	0.0	9.5	100.0	0.0	0.0	9.5
18. Salgaokar CCGT (Goa)	0.0	0.0	48.0	100.0	0.0	0.0	48.0
29. Basin Bridge DGPP (T.N)	0.0	0.0	200.0	100.0	0.0	0.0	200.0
20. Dabhol CCGT (Maha.)	0.0	0.0	740.0	100.0	0.0	0.0	740.0
21. Torangallu CCGT	0.0	0.0	260.0	100.0	0.0	0.0	260.0
22. Kondapalli CCGT (AP)	0.0	0.0	350.0	100.0	0.0	0.0	350.0
23. Pillaiperumalnallur CCGT (TN)	0.0	0.0	225.0	100.0	0.0	0.0	225.0
24. Samalpatti DG (TN)	0.0	0.0	105.7	100.0	0.0	0.0	105.7
25. Jojobera TPS (Bihar)	0.0	0.0	120.0	100.0	0.0	0.0	120.0
26. Bellary DG	0.0	0.0	25.2	100.0	0.0	0.0	25.2
27. GSEC (Guj.)	0.0	0.0	420.0	100.0	0.0	0.0	420.0
28. Wind Farms (Private)	0.0	0.0	0.0	0.0	1212.2	0.0	1212.2
Sub-total :(V)	477.0	4.8	8244.6	83.0	1212.2	0.0	9933.8
VI.OTHERS (Islands):	0.0	0.0	35.3	100.0	0.0	0.0	35.3
Grand Total :	25120.7	24.7	74777.2	73.6	1269.5	1.2	101660.2

Installed Capacity (MW)

		As on 31st March, 2002 (Provisional)						
		Hydel	(%)	Thermal	(%)	Wind	(%)	Total
I. SEBs								
1	Andhra Pradesh	3121.94	50.53	3051.50	49.39	5.40	0.09	6178.84
2	Assam	2.00	0.33	595.19	99.67	0.00	0.00	597.19
3	Bihar	44.90	7.50	553.50	92.50	0.00	0.00	598.40
4	Chhatisgarh	120.00	8.57	1280.00	91.43	0.00	0.00	1400.00
5	Delhi(DVB)	0.00	0.00	706.60	100.00	0.00	0.00	706.60
6	Gujarat	547.00	11.61	4148.38	88.03	17.30	0.37	4712.68
7	Haryana	883.90	44.41	1106.42	55.59	0.00	0.00	1990.32
8	Himachal Pradesh	323.67	99.96	0.13	0.04	0.00	0.00	323.80
9	Jammu & Kashmir	311.69	62.89	183.94	37.11	0.00	0.00	495.63
10	Jharkhand	130.00	9.35	1260.00	90.65	0.00	0.00	1390.00
11	Karnataka	2907.55	67.25	1413.12	32.69	2.60	0.06	4323.27
12	Kerala	1795.00	88.35	234.60	11.55	2.00	0.10	2031.60
13	Madhya Pradesh	827.91	27.73	2157.50	72.25	0.60	0.02	2986.01
14	Maharashtra	2400.17	24.63	7337.00	75.30	6.40	0.07	9743.57
15	Meghalaya	186.71	98.91	2.05	1.09	0.00	0.00	188.76
16	Orissa	1877.00	81.66	420.00	18.27	1.49	0.06	2298.49
17	Punjab	2398.94	52.97	2130.00	47.03	0.00	0.00	4528.94
18	Rajasthan	971.61	32.48	2013.50	67.31	6.40	0.21	2991.51
19	Tamil Nadu	1995.15	38.21	3207.00	61.42	19.40	0.37	5221.55
20	Uttar Pradesh	556.60	11.95	4102.00	88.05	0.00	0.00	4658.60
21	Uttranchal	954.15	100.00	0.00	0.00	0.00	0.00	954.15
22	West Bengal	164.71	4.60	3417.06	95.37	1.00	0.03	3582.77
Sub-total :(I)		22520.60	36.38	39319.49	63.52	62.59	0.10	61902.68
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	10.45	27.41	89.55	0.00	0.00	30.61
5	Mizoram	8.26	22.20	28.94	77.80	0.00	0.00	37.20
6	Nagaland	20.20	90.34	2.00	8.94	0.16	0.72	22.36
7	Pondicherry	0.00	0.00	32.50	100.00	0.00	0.00	32.50
8	Sikkim	32.90	86.81	5.00	13.19	0.00	0.00	37.90
9	Tripura	16.01	18.76	69.35	81.24	0.00	0.00	85.36
Sub-total :(II)		110.17	37.53	183.08	62.37	0.27	0.09	293.52
III. Islands:		5.25	10.66	44.02	89.34	0.00	0.00	49.27

Annexure 3.6

		Installed Capacity (MW)						
		As on 31st March, 2002 (Provisional)						
		Hydel	(%)	Thermal	(%)	Wind	(%)	Total
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	2720.00	100.00	0.00	0.00	2720.00
3	DVC	144.00	5.00	2737.51	95.00	0.00	0.00	2881.51
4	NEEPCO	730.00	66.06	375.00	33.94	0.00	0.00	1105.00
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	19934.00	100.00	0.00	0.00	19934.00
Sub-total :(IV)		3049.00	9.65	28556.51*	90.35	0.00	0.00	31605.51
V.PRIVATE SECTOR								
1	Andhra Pradesh	0.00	0.00	972.20	91.83	86.50	8.17	1058.70
2	Assam	0.00	0.00	24.50	100.00	0.00	0.00	24.50
3	Goa	0.00	0.00	48.00	100.00	0.00	0.00	48.00
4	Gujarat	0.00	0.00	2490.20	94.33	149.60	5.67	2639.80
5	Himachal Pradesh	86.00	100.00	0.00	0.00	0.00	0.00	86.00
6	Jharkhand	0.00	0.00	240.00	100.00	0.00	0.00	240.00
7	Karnataka	31.20	4.84	561.30	87.06	52.20	8.10	644.70
8	Kerala	12.00	5.77	195.84	94.23	0.00	0.00	207.84
9	Madhya Pradesh	0.00	0.00	0.00	0.00	22.00	100.00	22.00
10	Maharashtra	447.00	13.42	2570.00	77.16	313.80	9.42	3330.80
11	Rajasthan	0.00	0.00	0.00	0.00	7.60	100.00	7.60
12	Tamil Nadu	0.00	0.00	742.16	47.73	812.90	52.27	1555.06
13	West Bengal	0.00	0.00	1201.52	100.00	0.00	0.00	1201.52
Sub-total :(V)		576.20	5.21	9045.72	81.74	1444.60	13.05	11066.52
Grand Total :		26261.22	25.03	77148.82*	73.53	1507.46	1.44	104917.50

* Thermal Capacity includes 2720 MW of Nuclear of DAE.

Annexure 3.7

Addition to Installed Capacity (MW)

		1998-99			1999-2000			2000-01			2001-02		
		Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total
I. SEBs													
1	Andhra Pradesh	0	0	0	15	0	15	150	0	150	300	0	300
2	Assam	0	0	0	0	0	0	0	0	0	0	0	0
3	Bihar	0	0	0	0	0	0	0	0	0	0	0	0
4	Chattisgarh	0	0	0	0	0	0	0	0	0	0	0	0
5	Delhi(DVB)	0	0	0	0	0	0	0	0	0	0	105	105
6	Gujarat	60	210	270	0	0	0	0	0	0	0	156	156
7	Haryana	0	0	0	0	0	0	0	210	210	0	0	0
8	Himachal Pradesh	0	0	0	0	0	0	23	0	23	0	0	0
9	Jammu & Kashmir	0	0	0	35	0	35	8	0	8	79	0	79
10	Jharkhand	0	0	0	0	0	0	0	0	0	0	0	0
11	Karnataka	180	210	390	40	210	250	60	0	60	180	0	180
12	Kerala	16	20	36	50	128	178	50	0	50	0	0	0
13	Madhya Pradesh	0	210	210	23	210	233	20	0	20	35	0	35
14	Maharashtra	258	0	258	774	0	774	0	420	420	0	0	0
15	Meghalaya	0	0	0	0	0	0	0	0	0	0	0	0
16	Orissa	0	0	0	300	0	300	300	0	300	0	0	0
17	Punjab	0	210	210	0	0	0	600	0	600	0	0	0
18	Rajasthan	0	250	250	0	250	250	0	0	0	0	500	500
19	Tamil Nadu	8	0	8	30	0	30	0	107	107	0	0	0
20	Uttar Pradesh	6	0	6	23	0	23	0	0	0	0	0	0
21	Uttaranchal	0	0	0	0	0	0	0	0	0	0	0	0
22	West Bengal	15	0	15	23	210	233	0	420	420	0	0	0
Sub-Total :(I)		543	1110	1653	1312	1008	2320	1210	1157	2367	594	761	1355
II.EDs													
1	Arunachal Pradesh	0	0	0	0	0	0	0	0	0	0	0	0
2	A&N Islands	0	0	0	0	0	0	0	6	6	5	0	5
3	Goa	0	0	0	0	0	0	0	0	0	0	0	0
4	Lakshadweep	0	0	0	0	0	0	0	3	3	0	0	0
5	Manipur	0	0	0	0	0	0	0	0	0	0	18	18
6	Mizoram	0	0	0	0	0	0	0	0	0	0	0	0
7	Nagaland	0	0	0	0	0	0	0	0	0	16	0	16
8	Pondicherry	0	23	23	0	10	10	0	0	0	0	0	0
9	Sikkim	0	0	0	0	0	0	0	0	0	0	0	0
10	Tripura	0	0	0	0	0	0	0	0	0	0	0	0
Sub-Total :(II)		0	23	23	0	10	10	0	9	9	21	18	39

Annexure 3.7

Addition to Installed Capacity (MW)

		1998-99			1999-2000			2000-01			2001-02		
		Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total	Hydel	Thermal	Total
III.CENTRAL SECTOR													
1	DAE (Nuclear)	0	0	0	0	440	440	0	440	440	0	0	0
2	DVC	0	0	0	0	0	0	0	0	0	0	0	0
3	NEEPCO	0	51	51	0	0	0	75	0	75	405	0	405
4	NLC	0	0	0	0	0	0	0	0	0	0	0	0
5	NHPC	0	0	0	60	0	60	0	0	0	0	0	0
6	NTPC	0	941	941	0	1115	1115	0	144	144	0	500	500
Sub-total :(III)		0	992	992	60	1555	1615	75	584	659	405	500	905
IV.PRIVATE SECTOR													
1	Andhra Pradesh	0	0	0	0	0	0	0	350	350	0	179	179
2	Assam	0	5	5	0	0	0	0	0	0	0	0	0
3	Bihar	0	0	0	0	0	0	0	120	120	0	0	0
4	Chattisgarh	0	0	0	0	0	0	0	0	0	0	0	0
5	Delhi(DVB)	0	0	0	0	0	0	0	0	0	0	0	0
6	Goa	0	0	0	0	48	48	0	0	0	0	0	0
7	Gujarat	0	250	250	0	250	250	0	0	0	0	0	0
8	Haryana	0	0	0	0	25	25	0	0	0	0	0	0
9	Himachal Pradesh	0	0	0	0	0	0	0	0	0	86	0	86
10	Jammu & Kashmir	0	0	0	0	0	0	0	0	0	0	0	0
11	Jharkhand	0	0	0	0	0	0	0	0	0	0	120	120
12	Karnataka	0	130	130	0	130	130	0	25	25	0	220	220
13	Kerala	0	0	0	0	135	135	0	39	39	0	0	0
14	Madhya Pradesh	0	0	0	0	0	0	0	0	0	0	0	0
15	Maharashtra	0	740	740	0	0	0	0	0	0	0	0	0
16	Meghalaya	0	0	0	0	0	0	0	0	0	0	0	0
17	Orissa	0	0	0	0	0	0	0	0	0	0	0	0
18	Punjab	0	0	0	0	0	0	0	0	0	0	0	0
19	Rajasthan	0	0	0	0	0	0	0	0	0	0	0	0
20	Tamil Nadu	0	200	200	0	0	0	0	330	330	0	212	212
21	Uttar Pradesh	0	0	0	0	0	0	0	0	0	0	0	0
22	Uttaranchal	0	0	0	0	0	0	0	0	0	0	0	0
23	West Bengal	0	250	250	0	0	0	0	0	0	0	0	0
Sub-total :(IV)		0	1575	1575	0	588	588	0	864	864	86	730	816
Grand Total :		543	3700	4242	1372	3161	4533	1285	2614	3899	1106	2009	3115

ANNEXURE 3.8

Plant Availability

(%)

SEBs.	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
1 Andhra Pradesh	82.44	83.30	85.60	90.20	89.00	90.90	85.30	89.80	89.40
2 Assam	52.10	63.30	52.30	63.30	55.40	49.00	36.90	31.40	34.20
3 Bihar	46.40	49.00	42.40	34.00	36.90	30.40	41.80	36.50	35.00
Tenughat Nigam							69.90	45.10	45.10
4 Delhi (DVB)	75.20	67.30	71.30	72.30	67.80	72.00	58.50	71.20	70.20
5 Gujarat	82.40	78.80	78.20	82.10	85.00	81.90	77.80	77.80	80.60
GSECL								85.10	86.60
6 Haryana	69.40	61.50	59.10	62.20	68.80	70.30	65.20	69.20	63.60
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	56.60	81.20	86.40	83.60	86.20	88.70	90.70	87.40	87.60
10 Kerala	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11 Madhya Pradesh	72.00	73.60	78.40	77.10	76.40	77.40	78.40	79.00	77.60
12 Maharashtra	77.70	83.80	82.90	84.40	85.90	85.00	82.90	85.10	86.40
13 Meghalaya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14 Orissa \$	59.00	63.60	56.70	81.00	84.10	83.70	88.50	92.50	93.80
15 Punjab	81.40	82.10	81.60	84.70	80.80	88.10	79.20	82.70	84.80
16 Rajasthan	83.00	85.90	78.60	77.40	80.30	89.30	83.20	86.50	87.80
17 Tamil Nadu	74.90	77.70	78.00	84.50	83.20	81.90	77.40	81.70	80.50
18 Uttar Pradesh	69.00	69.60	72.90	60.40	62.70	63.10	61.30	64.30	70.20
19 West Bengal PDC	52.30	69.50	68.90	61.30	65.40	71.20	82.60	77.90	77.30
WBSEB							66.20	68.10	64.70
All India	74.69	78.00	76.62	77.80	79.00	79.40	78.70	80.30	80.50

Annexure 3.9

Forced Outages of Thermal Stations (%)

S. No.	Agency	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001
I. SEBs										
	Northern Region	15.20	14.50	15.89	15.56	17.10	11.90	18.10	12.90	12.60
1	Haryana	16.39	26.70	35.70	29.74	24.10	22.70	25.10	26.30	19.10
2	Punjab	8.19	13.10	10.20	7.10	12.80	4.70	12.20	9.50	10.70
3	Rajasthan	7.22	4.90	9.20	10.32	9.40	5.00	14.70	3.70	4.20
4	U.P.	27.57	22.70	15.86	26.11	29.70	23.20	32.10	25.60	24.70
5	Delhi(DVB)	17.30	26.50	25.90	18.05	26.60	19.80	34.00	22.60	26.30
	Western Region	11.64	10.30	8.29	8.16	7.80	7.40	8.20	8.40	8.80
6	Gujarat	7.20	7.60	6.60	7.90	7.40	7.80	10.40	12.90	12.40
7	Maharashtra	14.07	10.00	7.79	10.19	10.00	9.40	10.90	9.20	8.90
8	Madhya Pradesh	14.63	19.30	12.20	11.00	9.00	10.40	9.90	10.60	11.20
	Southern Region	13.69	10.00	8.70	6.84	5.40	5.90	9.80	7.40	4.00
9	Andhra Pradesh	7.46	8.20	6.00	6.42	5.90	4.30	10.00	5.90	3.00
10	Tamil Nadu	10.08	10.40	8.10	8.15	7.70	8.20	16.60	10.90	4.50
11	Karnataka Power Corp.	26.57	8.90	6.70	6.96	2.90	5.30	5.50	2.80	5.70
	Eastern Region	29.62	20.10	20.40	20.16	23.80	24.50	23.60	24.90	24.80
12	Bihar	41.90	31.10	21.90	28.36	36.00	48.30	40.80	40.60	42.50
13	Orissa \$	25.90	19.80	33.50	19.00	5.30	5.20	4.30	1.60	5.90
14	West Bengal SEB	40.37	24.20	17.90	16.67	14.80	22.00	30.40	31.60	33.10
15	WBPDC	11.51	5.20	8.40	10.37	11.60	13.20	17.00	19.30	17.30
16	D.P.L.	25.92	21.60	22.23	28.01	42.80	35.50	53.70	49.50	28.90
	N.E.Region	46.52	33.60	21.31	10.54	35.40	48.50	49.40	52.00	51.40
17	Assam	46.52	33.60	21.30	10.54	35.40	48.50	49.40	52.00	51.40
	All SEBs	16.93	15.00	13.50	9.60	14.30	13.60	17.80	15.60	14.20
II. Central Sector										
1	N.T.P.C.(STPS)	9.42	6.00	6.40	7.20	8.30	8.70	6.60	5.20	6.90
2	NLC	27.04	19.10	18.10	7.23	6.90	5.50	8.30	9.90	5.20
3	D.V.C.	41.09	25.70	34.60	22.67	34.20	30.00	37.80	40.60	41.50
III. Private Sector										
1	A.E.Co.	10.55	9.87	2.68	1.99	5.90	2.90	2.90	4.60	4.80
1	A.E.Co.	14.34	8.30	3.59	3.74	2.50	2.50	2.80	6.20	5.00
2	Trombay	10.06	12.30	2.10	1.55	6.40	3.50	1.70	3.50	4.40
3	C.E.S.C.	9.06	4.70	3.30	1.79	1.60	2.10	5.00	7.10	4.50
4	BSES				30.19	11.80	2.50	3.30	1.80	5.90
IV. All India										
	All India	16.19	13.17	12.42	11.95	12.80	12.10	14.50	13.10	12.60

Plant Load Factor of Thermal Stations (%)

S. No.	Agency	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
I. SEBs											
	Northern Region	62.00	64.00	59.10	62.00	64.70	66.70	67.20	70.90	73.10	75.10
1	Haryana	49.90	40.50	44.70	42.90	47.70	49.40	48.80	53.00	49.70	60.50
2	Punjab	58.30	63.50	56.70	55.00	65.70	69.10	69.40	74.70	77.90	79.20
3	Rajasthan	77.00	81.00	75.60	73.70	75.60	80.50	78.10	82.30	85.00	84.80
4	U.P.	50.50	50.30	43.90	47.30	49.10	48.80	48.90	49.80	57.00	59.70
5	Delhi(DVB)	54.00	49.00	53.90	51.70	41.70	47.20	38.20	49.90	49.50	45.20
	Western Region	59.70	63.40	63.80	68.10	70.20	70.30	70.50	72.30	73.40	74.20
6	Gujarat	61.60	60.40	60.50	65.30	64.80	65.60	63.60	63.40	66.90	66.30
7	Maharashtra	59.70	64.10	61.20	64.90	68.70	68.30	68.40	71.70	72.60	74.50
8	Madhya Pradesh	52.50	56.10	58.20	58.70	62.30	66.00	67.20	69.40	66.60	63.00
9	Chhatisgarh									65.70	71.30
	Southern Region	62.60	68.30	69.10	74.70	75.80	77.10	75.40	79.60	82.00	82.30
10	Andhra Pradesh	65.00	68.70	70.20	77.40	78.30	82.00	76.80	83.20	85.40	86.30
11	Tamil Nadu	65.20	69.00	68.10	76.10	72.30	68.10	65.90	72.30	74.80	78.00
12	Karnataka	49.40	66.90	64.90	67.70	70.20	75.20	81.60	82.30	81.30	81.10
	Eastern Region	39.80	44.80	43.70	42.70	42.20	43.00	44.30	46.10	47.90	48.70
13	Bihar	25.20	24.40	20.00	17.40	15.30	16.10	22.50	19.70	15.40	14.50
	Tenughat V						51.70	40.10	31.70	36.20	31.50
14	Jharkhand									20.80	21.00
15	Orissa *	34.50	35.50	29.00	67.00	69.40	65.30	76.20	85.60	81.70	70.70
16	West Bengal	31.10	40.50	41.20	34.60	39.20	40.00	36.80	39.80	36.00	38.30
	WBPDCL	58.10	68.20	60.40	57.60	56.50	52.80	60.70	56.20	55.90	51.70
	DPL	28.70	26.30	26.60	26.50	29.50	25.30	17.60	24.80	17.50	30.40
	N.E. Region	24.30	19.90	26.80	28.60	27.10	21.30	18.70	18.20	18.50	16.80
17	Assam	24.30	19.90	26.70	28.60	27.10	21.30	18.70	18.20	18.50	16.80
	All SEBs	54.10	56.60	55.00	58.00	60.30	60.90	60.80	63.70	65.60	67.00
II. Central Sector		62.70	69.80	69.20	70.90	71.00	70.40	71.10	73.80	74.30	74.30
1	N.T.P.C.(STPS)	68.80	76.90	76.20	76.70	76.40	74.40	75.60	79.70	79.50	80.10
2	NLC	56.40	55.50	60.40	67.60	70.30	72.50	73.60	73.20	80.90	79.50
3	D.V.C.	32.30	42.30	38.20	37.80	35.60	38.40	38.00	35.90	36.00	33.60
III. Private Sector		54.10	56.60	65.90	72.30	71.20	71.10	68.30	68.90	73.10	74.70
1	A.E.Co.	62.50	67.00	69.10	69.30	71.40	71.30	74.40	81.70	82.70	82.30
2	Trombay	54.30	48.80	60.60	72.80	68.80	63.50	61.20	60.80	70.40	72.00
3	C.E.S.C.	67.50	71.30	75.60	78.90	74.90	76.90	72.40	64.00	68.30	69.00
4	BSES				55.30	73.20	82.40	74.80	86.00	81.60	86.50
IV. All India		57.10	61.00	60.00	63.00	64.40	64.70	64.60	67.30	69.00	69.90

Annexure 3.11

Gross Generation (MKwh)

	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
I. States										
1. Andhra Pradesh	18371	19959	21141	22499	25913	29182	31957	35386	35539	35327
2. Assam	1068	940	1255	1423	1332	1033	939	920	1063	993
3. Bihar	2967	2987	2700	2301	2742	3570	4223	3621	3593	733
3.(a) Jharkhand										0
4. Delhi(DVB)	2432	2281	2304	2219	2026	2183	2064	2533	2800	2680
5. Gujarat	23045	24121	22008	25993	27075	30247	35434	36300	35159	33501
6. Haryana	7973	6677	7418	7262	7627	7331	3754	4039	3795	5308
7. Himachal Pradesh	1087	977	1132	1285	1252	1306	1458	1194	1165	1331
8. Jammu & Kashmir	801	790	879	798	796	951	668	602	564	558
9. Karnataka	12758	14344	16741	15503	12927	17109	17060	20795	21637	21865
10. Kerala	6193	5822	6571	6626	5510	5183	7613	7656	7154	7557
11. Madhya Pradesh	13260	14383	16597	17599	18416	19449	20996	22615	22237	14757
11(a) Chhatisgarh										0
12. Maharashtra	38607	41417	38210	50699	53562	54186	56803	62112	61143	62800
13. Meghalaya	430	584	378	543	486	596	544	637	658	614
14. Orissa	5423	5373	5765	6009	5946	5840	6214	8356	8443	9991
15. Punjab	15718	16322	17175	16899	18455	17900	14393	17059	17599	18425
16. Rajasthan	8592	8529	8773	9929	10386	10853	8064	9171	10236	11208
17. Tamil Nadu	16959	17627	19917	21975	23636	23827	22380	24986	26495	28743
18. Uttar Pradesh	18167	19847	21675	22827	23637	23790	24891	24388	24883	22541
18.(a) Uttranchal										0
19. West Bengal	11700	13585	10464	14287	14889	14755	15742	16431	17885	20367
Sub-total :(I)	205550	216561	221103	246674	256614	269290	275197	298801	302048	313030
II. EDs										
1. Arunachal Pradesh	54	60	69	67	57	89	16	13	13	12
2. Goa	0	0	0	0	0	0	0	0	0	0
3. Manipur	4	3	3	4	2	1	0	0	0	0
4. Mizoram	19	16	20	15	14	18	0	0	0	0
5. Nagaland	4	2	3	4	3	2	0	0	0	2
6. Pondicherry	0	0	0	0	0	0	0	132	233	250
7. Sikkim	43	51	59	64	73	63	26	11	21	35
8. Tripura	176	154	174	194	252	301	344	312	312	294
Sub-total :(II)	299	286	328	347	401	475	386	468	579	593
III. CENTRAL SECTOR:	90243	107121	113774	132757	138768	151868	158671	169221	186497	191726
IV. OTHERS :	4952	81	88	99	107	114	14106	12086	10424	9922
Grand Total :	301044	324050	335293	379877	395889	421747	448360	480576	499548	515271

Annexure 3.12

Gross Generation (MKwh) - (1997-98)

		Hydel		Thermal & Wind				Nuclear (%)	Total		
		SEB/COR. (%)	PVT. (%)	SEB/COR. (%)	PVT. (%)						
I.States											
1. Andhra Pradesh	7448	25.5	0	0.0	19691	67.5	2043	7.0	0	0.0	29182
2. Assam	0	0.0	0	0.0	1033	100.0	0	0.0	0	0.0	1033
3. Bihar	372	10.4	0	0.0	3198	89.6	0	0.0	0	0.0	3570
4. Delhi(DVB)	0	0.0	0	0.0	2183	100.0	0	0.0	0	0.0	2183
5. Gujarat	1285	4.2	0	0.0	22531	74.5	6431	21.3	0	0.0	30247
6. Haryana	3502	47.8	0	0.0	3830	52.2	0	0.0	0	0.0	7331
7. Himachal Pradesh	1306	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1306
8. Jammu & Kashmir	892	93.7	0	0.0	59	6.3	0	0.0	0	0.0	951
9. Karnataka	10820	63.2	74	0.4	6208	36.3	7	0.0	0	0.0	17109
10. Kerala	5040	97.2	28	0.5	115	2.2	0	0.0	0	0.0	5183
11. Madhya Pradesh	2324	11.9	0	0.0	17118	88.0	7	0.0	0	0.0	19449
12. Maharashtra	3637	6.7	1263	2.3	37974	70.1	11312	20.9	0	0.0	54186
13. Meghalaya	596	100.0	0	0.0	0	0.0	0	0.0	0	0.0	596
14. Orissa	3506	60.0	0	0.0	2334	40.0	0	0.0	0	0.0	5840
15. Punjab	7626	42.6	0	0.0	10274	57.4	0	0.0	0	0.0	17900
16. Rajasthan	3651	33.6	0	0.0	7201	66.4	0	0.0	0	0.0	10853
17. Tamil Nadu	5287	22.2	0	0.0	17779	74.6	761	3.2	0	0.0	23827
18. Uttar Pradesh	5410	22.7	0	0.0	18380	77.3	0	0.0	0	0.0	23790
19. West Bengal	297	2.0	0	0.0	10230	69.3	4228	28.7	0	0.0	14755
Sub-total :(I)	62999	23.4	1365	0.5	180137	66.9	24789	9.2	0	0.0	269290
II.EDs											
1. Arunachal Pradesh	69	77.6	0	0.0	20	22.4	0	0.0	0	0.0	89
2. Goa	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
3. Manipur	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0	1
4. Mizoram	4	0.0	0	0.0	14	0.0	0	0.0	0	0.0	18
5. Nagaland	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2
6. Pondicherry	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
7. Sikkim	62	98.3	0	0.0	1	1.7	0	0.0	0	0.0	63
8. Tripura	44	14.6	0	0.0	258	85.4	0	0.0	0	0.0	301
Sub-total :(II)	181	38.2	0	0.0	294	61.8	0	0.0	0	0.0	475
III. CENTRAL SECTOR:	10037	6.6	0	0.0	131749	86.8	0	0.0	10083	6.6	151868
IV. OTHERS :	0	0.0	0	0.0	114	100.0	0	0.0	0	0.0	114
Grand Total :	73217	17.4	1365	0.3	312294	74.0	24789	5.9	10083	2.4	421747

Annexure 3.13

Gross Generation (MKwh) - (1998-99)

	Hydel				Thermal				Nuclear (%)	Total		
	SEB/COR. (%)	PVT. (%)	SEB/COR. (%)	PVT. (%)	SEB/COR. (%)	PVT. (%)	SEB/COR. (%)	PVT. (%)				
I. States												
1. Andhra Pradesh	7586	23.7	0	0.0	21558	67	2813.0	8.8	0	0	31957	
2. Assam	0	0.0	0	0.0	939	100	0.0	0.0	0	0	939	
3. Bihar	183	4.3	0	0.0	4040	96	0.0	0.0	0	0	4223	
4. Delhi(DVB)	0	0.0	0	0.0	2064	100	0.0	0.0	0	0	2064	
5. Gujarat	1349	3.8	0	0.0	22847	64	11238.0	31.7	0	0	35434	
6. Haryana	267	7.1	0	0.0	3487	93	0.0	0.0	0	0	3754	
7. Himachal Pradesh	1458	100.0	0	0.0	0	0	0.0	0.0	0	0	1458	
8. Jammu & Kashmir	662	99.1	0	0.0	6	1	0.0	0.0	0	0	668	
9. Karnataka	10303	60.4	75	0.4	6682	39	0.0	0.0	0	0	17060	
10. Kerala	7316	96.1	45	0.6	252	3	0.0	0.0	0	0	7613	
11. Madhya Pradesh	2795	13.3	0	0.0	18201	87	0.0	0.0	0	0	20996	
12. Maharashtra	3704	6.5	1307	2.3	40839	72	10953.0	19.3	0	0	56803	
13. Meghalaya	544	100.0	0	0.0	0	0	0.0	0.0	0	0	544	
14. Orissa	3411	54.9	0	0.0	2803	45	0.0	0.0	0	0	6214	
15. Punjab	3496	24.3	0	0.0	10897	76	0.0	0.0	0	0	14393	
16. Rajasthan	1298	16.1	0	0.0	6766	84	0.0	0.0	0	0	8064	
17. Tamil Nadu	4958	22.2	0	0.0	17261	77	161.0	0.7	0	0	22380	
18. Uttar Pradesh	6138	24.7	0	0.0	18753	75	0.0	0.0	0	0	24891	
19. West Bengal	357	2.3	0	0.0	10571	67	4814.0	30.6	0	0	15742	
Sub-total :(I)	55825	20.3	1427	0.5	187966	68	29979.0	10.9	0	0	275197	
II. EDs												
1. Arunachal Pradesh	16	100.0	0	0.0	0	0	0.0	0.0	0	0	16	
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	0	0.0	0.0	0	0	0	
7. Sikkim	26	100.0	0	0.0	0	0	0.0	0.0	0	0	26	
8. Tripura	57	16.6	0	0.0	287	83	0.0	0.0	0	0	344	
Sub-total :(II)	99	25.6	0	0.0	287	74	0.0	0.0	0	0	386	
III.CENTRAL SECTOR:	11233	7.1	0	0.0	135423	85	0.0	0.0	12015	8	158671	
IV. OTHERS : *	14106	100.0	0	0.0	0	0	0.0	0.0	0	0	14106	
Grand Total :	81263	18.1	1427	0.3	323676	72	29979.0	6.7	12015	3	448360	

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

Annexure 3.14

Gross Generation (MKwh) - (1999-2000)

	Hydel				Thermal				Nuclear (%)	Total	
	SEB/COR. (%)	PVT. (%)			SEB/COR. (%)	PVT. (%)					
I.States											
1. Andhra Pradesh	8637	24	0	0	23501	66	3248	9	0	0	35386
2. Assam	0	0	0	0	920	100	0	0	0	0	920
3. Bihar	206	6	0	0	3415	94	0	0	0	0	3621
4. Delhi(DVB)	0	0	0	0	2533	100	0	0	0	0	2533
5. Gujarat	1040	3	0	0	24266	67	10994	30	0	0	36300
6. Haryana	247	6	0	0	3792	94	0	0	0	0	4039
7. Himachal Pradesh	1194	100	0	0	0	0	0	0	0	0	1194
8. Jammu & Kashmir	602	100	0	0	0	0	0	0	0	0	602
9. Karnataka	12080	58	63	0	8472	41	180	1	0	0	20795
10. Kerala	7039	92	33	0	579	8	5	0	0	0	7656
11. Madhya Pradesh	2463	11	0	0	20152	89	0	0	0	0	22615
12. Maharashtra	3819	6	1623	3	41530	67	15140	24	0	0	62112
13. Meghalaya	637	100	0	0	0	0	0	0	0	0	637
14. Orissa	4503	54	0	0	3159	38	694	8	0	0	8356
15. Punjab	3222	19	0	0	13837	81	0	0	0	0	17059
16. Rajasthan	995	11	0	0	8176	89	0	0	0	0	9171
17. Tamil Nadu	4432	18	0	0	19076	76	1478	6	0	0	24986
18. Uttar Pradesh	5292	22	0	0	19096	78	0	0	0	0	24388
19. West Bengal	396	2	0	0	10626	65	5409	33	0	0	16431
Sub-total :(I)	56804	19	1719	1	203130	68	37148	10	0	0	298801
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	132	100	0	0	0	0	132
7. Sikkim	11	100	0	0	0	0	0	0	0	0	11
8. Tripura	61	20	0	0	251	80	0	0	0	0	312
Sub-total :(II)	85	18	0	0	383	82	0	0	0	0	468
III.CENTRAL SECTOR:	9839	6	0	0	146115	86	0	0	13267	8	169221
IV. OTHERS : *	12086	100	0	0	0	0	0	0	0	0	12086
Grand Total :	78814	16	1719	0	349628	73	37148	8	13267	3	480576

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

Annexure 3.15

Gross Generation (MKwh) - 2000-01

	Hydel				Thermal				Nuclear (%)	Total	
	SEB/COR. (%)	PVT. (%)			SEB/COR. (%)	PVT. (%)					
I.States											
1. Andhra Pradesh	7729	22	0	0	23906	67	3904	11	0	0	35539
2. Assam	0	0	0	0	932	88	131	12	0	0	1063
3. Bihar	144	4	0	0	3449	96	0	0	0	0	3593
4. Delhi(DVB)	0	0	0	0	2800	100	0	0	0	0	2800
5. Gujarat	439	1	0	0	25781	73	8939 @	25	0	0	35159
6. Haryana	244	6	0	0	3551	94	0	0	0	0	3795
7. Himachal Pradesh	1165	100	0	0	0	0	0	0	0	0	1165
8. Jammu & Kashmir	559	99	0	0	5	1	0	0	0	0	564
9. Karnataka	10773	50	119	1	9562	44	1183 @	5	0	0	21637
10. Kerala	6190	87	31	0	933	13	0	0	0	0	7154
11. Madhya Pradesh	1820	8	0	0	20417	92	0	0	0	0	22237
12. Maharashtra	3661	6	1152	2	42188	69	14142	23	0	0	61143
13. Meghalaya	658	100	0	0	0	0	0	0	0	0	658
14. Orissa	4612	55	0	0	3831	45	0 @	0	0	0	8443
15. Punjab	3141	18	0	0	14458	82	0	0	0	0	17599
16. Rajasthan	376	4	0	0	9860	96	0	0	0	0	10236
17. Tamil Nadu	5441	21	0	0	19682	74	1372	5	0	0	26495
18. Uttar Pradesh	5301	21	0	0	19582	79	0	0	0	0	24883
19. West Bengal	446	2	0	0	11293	63	6146	34	0	0	17885
Sub-total :(a)	52699	17	1302	0	212230	70	35817	12	0	0	302048
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	233	100	0	0	0	0	233
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 :(b)	104	18	0	0	475	82	0	0	0	0	579
III. CENTRAL SECTOR(c):	9952	5	0	0	159617	86	0	0	16928	9	186497
IV. OTHERS (d) : *	10424	100	0	0	0	0	0	0	0	0	10424
Grand Total :	73179	15	1302	0	372322	75	35817 @	7	16928	3	499548

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

@ It includes import from Private Plants such as Essar (Gujarat) - 558 MU, Jindal (Karnataka) - 1170 MU, Nalco & ICCL (Orissa) - 331 MU & 494 MU respectively, aggregating to 2553 MU through Private import.

Annexure 3.16

Gross Generation (MKwh) - 2001-02

	Hydel				Thermal				Nuclear (%)	Total	
	SEB/COR. (%)	PVT. (%)			SEB/COR. (%)	PVT. (%)					
I. States											
1. Andhra Pradesh	6156	17	0	0	24201	69	4970	14	0	0	35327
2. Assam	0	0	0	0	846	85	147	15	0	0	993
3. Bihar	61	8	0	0	672	92	0	0	0	0	733
3.(a) Jharkhand	101				2577						
4. Delhi(DVB)	0	0	0	0	2680	100	0	0	0	0	2680
5. Gujarat	284	1	0	0	25794	77	7423 @	22	0	0	33501
6. Haryana	232	4	0	0	5076	96	0	0	0	0	5308
7. Himachal Pradesh	1144	86	187	14	0	0	0	0	0	0	1331
8. Jammu & Kashmir	558	100	0	0	0	0	0	0	0	0	558
9. Karnataka	9483	43	192	1	9721	44	2469 @	11	0	0	21865
10. Kerala	6735	89	70	1	664	9	88	1	0	0	7557
11. Madhya Pradesh	2212	15	0	0	12545	85	0	0	0	0	14757
11(a) Chhatisgarh	395				7747						
12. Maharashtra	3578	6	1308	2	45326	72	12588	20	0	0	62800
13. Meghalaya	614	100	0	0	0	0	0	0	0	0	614
14. Orissa	6459	65	0	0	3532	35	0 @	0	0	0	9991
15. Punjab	3710	20	0	0	14715	80	0	0	0	0	18425
16. Rajasthan	540	5	0	0	10668	95	0	0	0	0	11208
17. Tamil Nadu	4364	15	0	0	21183	74	3196	11	0	0	28743
18. Uttar Pradesh	2036	9	0	0	20505	91	0	0	0	0	22541
18(a) Uttranchal	2911										
19. West Bengal	548	3	0	0	13634	67	6185	30	0	0	20367
Sub-total :(a)	52121	17	1757	1	222086	71	37066	12	0	0	313030
II.EDs											
1. Arunachal Pradesh	12	100	0	0	0	0	0	0	0	0	12
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	2	0	0	0	0	0	0	0	0	0	2
6. Pondicherry	0	0	0	0	250	100	0	0	0	0	250
7. Sikkim	35	100	0	0	0	0	0	0	0	0	35
8. Tripura	68	23	0	0	226	77	0	0	0	0	294
Sub-total :(b)	117	20	0	0	476	80	0	0	0	0	593
III. CENTRAL SECTOR(c):	10075	5	0	0	162373	85	0	0	19278	10	191726
IV. OTHERS (d) : *	9922	100	0	0	0	0	0	0	0	0	9922
Grand Total :	72235	14	1757	0	384935	75	37066 @	7	19278	4	515271

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

@ It includes import from Private Plants such as Essar (Gujarat) - 660 MU, Jindal (Karnataka) - 925 MU, Nalco & ICCL (Orissa) - 453 MU & 478 MU respectively, aggregating to 2516 MU through Private import.

Annexure 3.17

Auxiliary Consumption

(%)

	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 (Provi.)	2000- 01 (RE)	2001- 02 (AP)
I.SEBs								
1. Andhra Pradesh	5.66	6.71	6.14	6.87	7.01	7.65	7.57	7.16
2. Assam	8.09	8.88	8.74	9.32	7.63	7.36	6.50	6.83
3. Bihar	12.80	13.53	10.27	12.64	13.57	13.84	13.88	13.82
4. Delhi(DVB)	8.84	9.09	8.94	8.68	8.85	8.54	8.27	8.08
5. Gujarat	9.66	9.25	8.26	9.52	9.58	9.32	9.66	9.21
6. Haryana HPGC	5.26	5.57	5.98	6.51	2.80	0.76 11.04	0.67 11.52	0.66 9.39
7. Himachal Pradesh	0.24	0.20	0.30	0.26	0.25	0.25	0.46	0.51
8. Jammu & Kashmir	1.00	1.00	0.18	1.00	1.00	1.00	1.00	1.00
9. Karnataka SEB KPC	1.60 3.51	2.02 4.08	2.59 5.51	2.47 3.69	1.95 3.79	1.85 3.85	0.00 4.37	0.00 4.44
10. Kerala	0.38	0.39	0.51	0.46	0.68	0.65	0.83	0.85
11. Madhya Pradesh	9.09	8.75	8.64	8.73	8.38	8.66	8.39	8.30
12. Maharashtra	7.53	7.64	5.73	7.46	7.41	7.48	7.37	7.35
13. Meghalaya	0.35	0.36	0.35	0.42	0.30	0.40	0.40	0.40
14. Orissa SEB OHPC OPGC	9.60	12.84 0.00 12.82	1.22 11.42	2.87 11.53	3.11 9.59	1.88 9.06	1.99 10.82	1.76 10.65
15. Punjab	4.49	4.46	4.36	5.01	4.69	5.54	5.47	5.20
16. Rajasthan(Transco.) Rajasthan(Genco.)	7.10	7.48	7.16	7.52	7.35	8.42	6.67 9.50	4.35 9.47
17. Tamil Nadu	6.41	6.71	7.15	6.80	7.15	7.29	6.62	6.78
18. UP(Power corp.) UP(TPG Corp.) UP(JVNL)	7.58	7.59	7.67	7.97	7.97	0.00 9.98 0.29	0.00 10.00 0.30	0.00 10.00 0.30
19. West Bengal SEB WBPDC	10.90 8.86	12.03 9.75	10.91 9.74	11.66 10.06	12.14 9.60	11.37 10.19	11.46 9.96	11.10 9.99
Average of SEBs :	7.44	7.11	6.59	7.15	7.04	7.20	7.19	7.06
Electricity Departments								
1. Arunachal Pradesh	6.45	8.49	7.62	7.63	7.51	11.67	11.33	7.01
2. Goa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Manipur	7.41	7.50	4.80	7.93	8.54	5.75	4.26	4.95
4. Mizoram	2.42	2.26	4.12	3.40	3.27	2.33	2.42	2.34
5. Nagaland	3.14	9.59	4.64	5.73	5.37	4.64	4.98	5.04
6. Pondicherry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Sikkim	4.80	4.73	4.41	1.27	1.65	1.79	2.35	1.50
8. Tripura	1.74	1.80	1.78	1.85	1.83	1.80	3.49	2.96
Average of EDs :	3.39	3.79	3.53	2.94	2.66	3.21	4.47	3.73
Average - All States & UTs	7.07	7.17	6.59	7.14	7.03	7.19	7.18	7.05

Annexure 3.18

Net Generation of Electricity

(MKwh)

	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 (Provi.)	2000- 01 (RE)	2001- 02 (AP)
I. SEBs									
1. Andhra Pradesh	18242	19992	21023	24322	24631	25130	27364	26786	27804
2. Assam	860	1166	1296	1215	936	855	803	935	1146
3. Bihar	2594	2357	1994	2460	1782	2341	2088	1891	2608
4. Delhi(DVB)	NA	2099	2018	2061	2285	1918	2317	2541	2445
5. Gujarat	19102	22555	23453	24839	21545	20934	21018	21521	22673
6. Haryana	6183	6964	6787	7171	6659	5170	3375	3275	3305
HPGC				0	0	2245	3604	3378	4851
7. Himachal Pradesh	974	1129	1283	1248	1303	1481	1198	1288	1546
8. Jammu & Kashmir	791	878	797	795	942	706	632	634	946
9. Karnataka SEB	938	16399	14969	939	1107	1105	1113	0	0
KPC	12845	15006	13678	11236	15302	15322	18725	18200	18779
10. Kerala	5789	6546	6600	5482	5165	7550	7606	7617	8202
11. Madhya Pradesh	13044	15084	16000	16825	17744	18828	19923	21841	22147
12. Maharashtra	31419	43346	47190	50491	38531	41095	42173	42797	44162
13. Meghalaya	582	376	541	484	593	554	631	629	598
14. Orissa	4058	5611	5849	0	0	0	NA	NA	NA
OHPC		0	0	3626	3217	3280	4442	5709	6137
OPGC		0	1061	1792	2065	2535	2879	2791	2797
15. Punjab	14626	16330	16072	17650	16231	18932	20380	20147	20833
16. Rajasthan(Transco.)	7888	8172	9210	9643	10024	11086	11519	5804	3826
Rajasthan(Genco.)								6183	9090
17. Tamil Nadu	16458	18648	20475	20558	22028	20558	21831	23695	24116
18. UP(Power corp.)	18227	20069	21095	21825	21893	21893	NA	NA	NA
UP(TPG Corp.)							17590	17589	17955
UP(JVNL)							5200	5138	5148
19. West Bengal SEB	3308	12848	12798	3350	3397	3194	3499	3407	3627
WBPDCL	4862	6119	5630	5581	5229	6048	5586	6800	7700
Sub-total : (I)	182790	220568	229449	211360	222609	232760	245495	250596	262438
II. EDs									
1. Arunachal Pradesh	59	64	61	82	82	61	55	57	95
2. Goa	0	0	0	0	0	0	0	0	0
3. Manipur	3	3	4	2	1	1	1	2	99
4. Mizoram	15	20	14	14	18	17	18	18	32
5. Nagaland	2	3	3	3	2	2	3	3	43
6. Pondicherry	0	0	0	0	0	0	0	0	0
7. Sikkim	48	56	61	69	62	54	50	42	79
8. Tripura	151	171	191	248	297	338	309	308	376
Sub-total : (II)	278	317	334	417	463	472	435	430	724
Grand total :	183069	220884	229783	211777	223071	233232	245931	251025	263162

Annexure 3.19

Purchase of Power
(Gross)

(MKwh)

	1993- 94	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999- 2000	2000- 01 (RE)	2001- 02 (AP)
I. SEBs									
1. Andhra Pradesh	8249	9129	8732	8508	11187	17219	41191	43000	44800
2. Assam	1235	1090	1146	1433	1747	1982	2116	2130	2072
3. Bihar	4998	6068	6860	7319	7982	7515	8539	8638	9365
4. Delhi (DVB)	NA	9693	10978	12261	11710	14180	14943	14939	16405
5. Gujarat	6896	7051	9798	11256	12655	15166	18998	17774	17813
6. Haryana	4985	4683	6112	6313	6644	8847	12087	13929	14640
7. Himachal Pradesh	1092	1452	1678	1833	2053	2082	2425	2436	2598
8. Jammu & Kashmir	2270	2283	2487	3048	3967	4723	4347	4673	5393
9. Karnataka	16316	18377	18450	17699	20486	22745	26117	27197	30552
10. Kerala	2020	2247	2638	3296	4236	3596	4275	5338	6109
11. Madhya Pradesh	10336	10774	12164	12819	12892	14307	14500	15218	15755
12. Maharashtra	9645	9584	13262	12862	14822	15500	18220	16630	21204
13. Meghalaya	54	90	56	89	78	95	110	132	165
14. Orissa	3769	4360	6267	9651	10324	10571	11130	12401	12283
15. Punjab	4027	4080	4972	5084	6647	6296	6008	6986	7147
16. Rajasthan(Transco.)	7512	8273	9986	10910	10931	12149	12731	30373	37585
Rajasthan(Genco.)								0	0
17. Tamil Nadu	8058	9038	8750	13031	10998	13031	14764	16221	19337
18. UP(Power corp.)	12775	13331	14032	14009	14540	14540	40943	42063	45711
UP(TPG Corp.)							0	0	0
UP(JVNL)							0	0	0
19. West Bengal	5874	6799	8459	8721	9024	10132	10109	10870	11370
Sub-Total :(a)	110111	128402	146826	163489	172923	194674	263551	290948	320304
II. EDs									
1. Arunachal Pradesh	30	40	57	60	79	85	87	90	80
2. Goa	990	1007	1147	1269	1379	1502	1461	1600	1738
3. Manipur	276	238	255	304	346	376	393	302	341
4. Mizoram	90	104	126	151	140	171	202	219	256
5. Nagaland	136	142	156	179	185	180	189	220	190
6. Pondicherry	833	976	982	982	1088	1222	1430	1625	1787
7. Sikkim	23	27	42	52	53	73	83	94	70
8. Tripura	104	113	129	128	148	219	259	274	305
Sub-Total :(b)	2483	2647	2893	3125	3419	3828	4104	4423	4767
Grand Total :	112594	131049	149720	166620	176342	198502	267655	295371	325071

Annexure 3.20

Purchase of Power
* (Net)

(MKwh)

	1992- 93	1993- 94	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999- 2000	2000- 01 (RE)	2001- 02 (AP)
I. SEBs										
1. Andhra Pradesh	7052	8127	8988	8592	8420	11041	17073	41094	43000	44800
2. Assam	935	1205	1019	1127	1393	1742	1982	2116	2130	2072
3. Bihar	4435	4978	6011	6807	7254	7853	7350	8394	8489	9193
4. Delhi (DVB)	8085	NA	9693	10978	12261	11104	13874	14943	14939	16405
5. Gujarat	5086	6830	7047	9795	11256	12655	14896	18868	17644	17683
6. Haryana	4033	4557	4622	6078	6296	6553	8748	12036	13929	14640
7. Himachal Pradesh	431	581	467	629	1101	1332	1369	1743	1823	1826
8. Jammu & Kashmir	1983	2270	2283	2487	3030	3967	4723	4347	4673	5393
9. Karnataka	15102	16316	18377	18450	17696	20486	22745	26117	27197	30552
10. Kerala	1128	2020	2247	2638	3296	4236	3596	4275	5338	6109
11. Madhya Pradesh	8979	10209	10425	11970	12650	12708	14131	14481	15199	15736
12. Maharashtra	8709	9458	6981	10769	12159	14567	14429	17588	16030	20504
13. Meghalaya	-138	-266	-27	-180	-82	-155	-74	-65	-27	82
14. Orissa	2077	3769	4360	6267	9651	10324	10571	10486	11525	11323
15. Punjab	3050	3277	3556	4636	4623	5693	4931	5318	6679	6840
16. Rajasthan(Transco.)	6065	7036	7959	9518	10596	10456	11712	12187	30243	37585
Rajasthan(Genco.)									0	0
17. Tamil Nadu	7115	7914	8881	8602	12826	10795	12826	14538	15975	19073
18. UP(Power corp.)	12389	12775	12914	13562	13560	14065	14065	40533	41530	45178
UP(TPG Corp.)								0	0	0
UP(JVNL)								0	0	0
19. West Bengal	5388	5343	6294	7903	8706	9018	10115	10089	10849	11348
Sub-Total :(a)	101903	106399	122097	140628	160040	168440	189061	259086	287165	316342
II. EDs										
1. Arunachal Pradesh	25	30	40	57	60	79	85	87	90	80
2. Goa	773	889	965	1124	1269	1350	NA	NA	NA	NA
3. Manipur	253	276	238	255	304	346	376	393	302	341
4. Mizoram	72	90	104	126	151	140	171	202	219	256
5. Nagaland	128	136	142	156	179	185	180	189	220	190
6. Pondicherry	826	833	976	982	982	1088	1222	1430	1625	1787
7. Sikkim	24	23	27	42	52	53	73	83	94	70
8. Tripura	66	104	113	129	128	139	166	209	248	252
Sub-Total :(b)	2167	2381	2605	2870	3125	3381	3775	4054	4397	4714
Grand Total :	104070	108780	124702	143498	163170	171821	192836	263140	291562	321055

* (Gross - Sale outside the State)

Annexure 3.21

Purchase of Power by Major Sources

(Mkwh)

		1997-98		1998-99		1999-2000		2000-01		2001-02	
		Central Sector	Others	Central Sector	Others	Central Sector	Others	Central Sector	Others	Central Sector	Others
		Actuals	Actuals	Actuals	Actuals	Prov.	Prov.	RE	RE	(AP)	(AP)
I. SEBs											
1.	Andhra Pradesh	8632	2555	7844.00	9375.00	9804.00	31387.00	10205	32795	10216	34584
2.	Assam	1035	712	1700	281	1795	321	1792	338	1732	340
3.	Bihar	6594	1388	6148	1367	7397	1142	7384	1254	8102	1263
4.	Delhi (DVB)	11662	48	9823	4357	9858	5084	9983	4955	11176	5228
5.	Gujarat	9738	2917	8218	6948	9673	9325	10049	7725	10928	6885
6.	Haryana	6203	441	6249	2598	8045	4042	10257	3672	10635	4005
7.	Himachal Pradesh	1151	902	1022	1059	1540	884	1552	884	1571	1027
8.	Jammu & Kashmir	3918	49	4679	45	4277	69	4633	40	5008	385
9.	Karnataka	5022	15464	5491	17254	5229	20888	5612	21585	6000	24552
10.	Kerala	4201	35	3544	52	4190	85	4430	908	4487	1622
11.	Madhya Pradesh	11500	1392	13303	1004	13717	783	14338	880	14865	890
12.	Maharashtra	10702	4120	11440	4060	11125	7095	13457	3173	14727	6477
13.	Meghalaya	78	0	95	0	110	0	132	0	165	0
14.	Orissa	4091	6233	3284	7287	2778	8352	4329	8072	3515	8768
15.	Punjab	6078	569	5676	620	5533	475	6171	815	6161	986
16.	Rajasthan(Transco.)	9965	965	11045	1103	12257	473	29391	983	37198	388
	Rajasthan(Genco.)							0	0	0	0
17.	Tamil Nadu	10005	993	10675	2356	10698	4066	12032	4189	12250	7087
18.	UP(Power corp.)	14257	283	14257	283	17425	23518	18714	23349	22159	23552
	UP(TPG Corp.)			0	0	0	0	0	0	0	0
	UP(JVNL)					0	0	0	0	0	0
19.	West Bengal	3177	5847	3244	6887	3307	6802	3345	7525	2860	8510
Sub-Total :(a)		128010	44914	127737	66937	138760	124792	167806	123142	183755	136549
II. EDs											
1.	Arunachal Pradesh	79	NA	85	NA	87	NA	90	NA	80	NA
2.	Goa	1379	0	1502	0	1260	201	1300	300	1482	256
3.	Manipur	342	4	347	29	383	10	302	0	341	0
4.	Mizoram	126	14	117	53	152	50	184	35	206	50
5.	Nagaland	162	23	180	0	189	0	220	0	190	0
6.	Pondicherry	842	246	916	306	1061	369	1212	413	1333	454
7.	Sikkim	53	0	48	25	55	28	64	30	40	30
8.	Tripura	144	4	219	0	259	0	274	0	305	0
Sub-Total :(b)		3127	292	3414	413	3446	657	3645	778	3976	790
Grand Total :		131137	45205	131151	67350	142206	125449	171451	123920	187732	137339

Annexure 3.22

Share of Power Purchase in Total Sale

(%)

	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 (Provi.)	2000- 01 (RE)	2001- 02 (AP)
I. SEBs									
1. Andhra Pradesh	38.6	39.5	37.1	40.5	46.7	68.2	159.6	151.3	150.4
2. Assam	74.5	64.6	63.5	73.1	93.1	113.1	116.9	111.2	100.6
3. Bihar	81.3	95.0	104.8	106.8	108.8	106.4	111.4	109.4	102.9
4. Delhi(DVB)	NA	141.7	163.8	178.7	147.2	173.6	177.7	163.2	159.9
5. Gujarat	33.7	32.8	39.7	42.2	47.3	52.6	60.9	56.5	54.5
6. Haryana	59.9	57.1	69.9	69.7	75.0	95.2	124.7	127.1	125.1
7. Himachal Pradesh	65.5	69.4	63.4	67.4	70.8	68.3	77.8	74.5	71.2
8. Jammu & Kashmir	141.9	136.2	143.9	153.3	153.9	164.4	164.8	166.2	159.8
9. Karnataka SEB	116.2	115.5	115.4	116.5	116.5	143.0	161.7	157.4	156.3
10. Kerala	32.4	32.0	35.6	46.9	55.3	39.4	43.7	49.9	51.6
11. Madhya Pradesh	55.7	51.5	53.0	54.2	52.4	53.7	61.8	59.5	59.4
12. Maharashtra	27.9	25.4	31.9	30.1	33.8	33.5	43.4	40.0	45.1
13. Meghalaya	9.5	23.7	10.9	19.3	14.2	18.2	18.7	21.7	27.1
14. Orissa	62.9	90.5	121.0	197.9	197.0	204.5	104.6	114.6	107.7
15. Punjab	26.5	25.8	30.3	28.6	35.3	30.0	27.5	31.2	31.0
16. Rajasthan(Transco.)	65.4	67.3	72.9	77.6	71.1	74.3	75.3	171.7	205.5
17. Tamil Nadu	39.7	39.1	35.6	50.8	40.8	46.8	48.5	48.7	53.2
18. UP(Power corp.)	53.7	51.7	51.8	51.8	53.6	53.6	172.9	166.2	163.2
19. West Bengal SEB	82.4	85.3	94.5	90.4	92.2	102.1	105.7	108.7	108.3
All SEBs	50.3	52.8	56.3	61.6	61.8	66.6	89.2	93.5	95.4
II. EDs									
1. Arunachal Pradesh	49.7	55.8	76.5	60.4	70.8	85.2	107.5	87.9	65.7
2. Goa	127.9	135.3	139.8	136.4	130.5	141.1	142.7	132.9	131.5
3. Manipur	128.0	111.3	103.2	106.1	107.5	208.8	226.9	166.0	136.2
4. Mizoram	85.8	121.3	123.1	121.0	167.6	166.1	177.3	158.9	148.3
5. Nagaland	143.6	141.6	142.0	140.5	140.2	139.1	136.6	133.0	104.6
6. Pondicherry	118.4	117.6	116.9	116.2	116.0	115.6	115.3	114.9	114.6
7. Sikkim	41.0	41.0	51.4	60.8	57.8	72.3	78.4	86.7	58.9
8. Tripura	58.1	56.8	57.5	49.4	47.0	55.1	63.8	65.4	62.2
All EDs	113.4	114.6	115.8	113.3	89.7	98.4	125.0	118.5	113.0
Overall	50.9	53.4	56.9	62.2	62.2	67.0	89.6	93.8	95.6

Annexure 3.23

Purchase of Power from Central Sector
as percentage of Total Purchase

(%)

	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provi.)	2000-01 (RE)	2001-02 (AP)
I. SEBs						
1. Andhra Pradesh	87.60	77.16	45.55	23.80	23.73	22.80
2. Assam	66.81	59.23	85.80	84.85	84.13	83.59
3. Bihar	91.59	82.61	81.81	86.62	85.48	86.51
4. Delhi(DVB)	95.24	99.59	69.27	65.97	66.83	68.13
5. Gujarat	84.23	76.95	54.19	50.92	56.54	61.35
6. Haryana	94.33	93.36	70.63	66.56	73.64	72.64
7. Himachal Pradesh	54.55	56.08	49.11	63.53	63.71	60.47
8. Jammu & Kashmir	100.00	98.78	99.06	98.41	99.14	92.86
9. Karnataka SEB	32.73	24.51	24.14	20.02	20.63	19.64
10. Kerala	100.00	99.17	98.56	98.00	82.99	73.44
11. Madhya Pradesh	92.73	89.20	92.98	94.60	94.22	94.35
12. Maharashtra	65.41	72.20	73.81	61.06	80.92	69.45
13. Meghalaya	100.00	100.00	100.00	100.00	100.00	100.00
14. Orissa	29.92	39.63	31.07	24.96	34.91	28.62
15. Punjab	98.49	91.44	90.15	92.09	88.33	86.20
16. Rajasthan(Transco.)	79.06	91.17	90.92	96.28	96.77	98.97
Rajasthan(Genco.)					0.00	0.00
17. Tamil Nadu	81.92	90.97	81.92	72.46	74.18	63.35
18. UP(Power corp.)	95.64	98.05	98.05	42.56	44.49	48.48
UP(TPG Corp.)				0.00	0.00	0.00
UP(JVNL)				0.00	0.00	0.00
19. West Bengal SEB	28.08	35.20	32.02	32.72	30.77	25.15
All SEBs	72.66	74.03	65.62	52.65	57.68	57.37
II. EDs						
1. Arunachal Pradesh	100.00	100.00	100.00	100.00	100.00	100.00
2. Goa	100.00	99.99	99.99	86.24	81.25	85.28
3. Manipur	92.51	98.83	92.39	97.56	99.98	99.98
4. Mizoram	95.77	90.07	68.70	75.25	83.84	80.43
5. Nagaland	87.25	87.42	100.00	100.00	100.00	100.00
6. Pondicherry	77.79	77.38	74.96	74.22	74.59	74.59
7. Sikkim	68.89	100.00	65.59	65.96	67.91	57.26
8. Tripura	100.00	97.20	100.00	100.00	100.00	100.00
All EDs	90.84	91.47	89.20	83.98	82.40	83.43
Overall	73.00	74.36	66.07	53.13	58.05	57.75

**Purchase of Power from Central Sector
as percentage of Availability**

(%)

	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provi.)	2000-01 (RE)	2001-02 (AP)
I. SEBs						
1. Andhra Pradesh	23.29	23.64	20.22	23.07	23.03	22.19
2. Assam	36.69	38.56	63.37	63.36	60.24	55.16
3. Bihar	73.08	67.03	62.38	69.66	70.13	69.54
4. Delhi(DVB)	85.52	80.25	61.74	57.85	57.80	59.92
5. Gujarat	27.21	28.47	22.77	24.18	25.57	26.99
6. Haryana	45.88	46.63	44.44	52.03	59.62	59.26
7. Himachal Pradesh	32.65	32.07	26.80	39.69	38.81	35.55
8. Jammu & Kashmir	76.70	79.82	86.17	85.92	87.31	79.01
9. Karnataka SEB	30.87	23.26	24.14	20.02	20.63	19.64
10. Kerala	37.00	44.72	31.80	35.26	34.20	31.35
11. Madhya Pradesh	40.45	37.54	40.15	39.85	38.69	39.22
12. Maharashtra	14.33	19.28	18.99	18.42	22.64	22.53
13. Meghalaya	15.57	11.68	14.57	14.88	17.31	21.62
14. Orissa	28.06	39.63	25.44	26.10	40.00	30.12
15. Punjab	22.66	26.57	22.50	20.97	22.74	22.02
16. Rajasthan(Transco.)	45.45	47.61	47.54	50.55	114.81	141.76
Rajasthan(Genco.)					0.00	0.00
17. Tamil Nadu	31.84	30.88	31.84	29.26	30.18	28.22
18. UP(Power corp.)	39.96	39.13	39.13	42.56	44.49	48.48
UP(TPG Corp.)				0.00	0.00	0.00
UP(JVNL)				0.00	0.00	0.00
19. West Bengal SEB	20.29	25.57	24.35	24.30	23.43	19.07
All SEBs	33.08	34.34	32.00	32.45	35.94	36.77
II. EDs						
1. Arunachal Pradesh	47.20	48.87	58.05	61.30	61.33	45.75
2. Goa	99.92	99.99	141.08	123.06	108.02	112.21
3. Manipur	75.61	83.38	78.94	84.42	82.88	68.11
4. Mizoram	88.19	80.01	62.63	68.94	77.29	71.56
5. Nagaland	88.73	86.42	139.07	140.55	132.96	102.93
6. Pondicherry	74.68	77.38	86.63	85.61	85.73	85.49
7. Sikkim	29.66	46.15	37.87	41.30	47.04	26.98
8. Tripura	33.17	32.27	55.01	63.81	65.39	62.19
All EDs	78.00	79.27	96.19	91.83	89.23	85.22
Overall	33.53	34.81	32.56	32.96	36.40	37.22

Annexure 3.25

Transmission & Distribution Losses

(Mkwh)

	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Prov.	1999- 2000 (R.E.)	2000- 01 (Plan Est)	2001- 02
I. SEBs								
1 Andhra Pradesh	5486	5575	10589	11863	12362	14947	14582	15016
2 Assam	559	639	688	807	1080	1110	1149	965
3 Bihar	2020	2286	2317	2500	2789	2965	2632	2874
4 Delhi	N.A.	6293	6779	6148	7742	8635	8118	8393
5 Gujarat	539	5963	7463	7417	7272	8828	7859	7792
6 Haryana	3269	3993	4254	4439	4772	5228	6021	5922
7 Himachal Pradesh	450	562	564	690	768	763	731	769
8 Jammu & Kashmir	1482	1634	1986	2330	2556	2341	2994	2963
9 Karnataka	3685	3628	3539	4007	6867	9924	9921	10999
10 Kerala	1767	1860	1904	1679	1962	2068	2235	2462
11 Madhya Pradesh	4918	5216	6051	6024	6476	10949	11488	11371
12 Maharashtra	7218	7935	10398	9505	9342	18411	17828	18302
13 Meghalaya	87	110	112	120	131	152	154	155
14 Orissa	2023	4583	5186	5084	5410	4807	5403	614
15 Punjab	3559	3652	4187	4069	4224	4551	4748	4899
16 Rajasthan(Transco.)	4100	5427	4911	5551	6837	7282	7412	7278
Rajasthan(Genco.)							0	0
17 Tamil Nadu	4698	5011	5501	5458	5667	6122	6579	7053
18 UP(Power corp.)	7553	8017	9058	9303	9303	17267	16753	17700
UP(TPG Corp.)						0	0	0
UP(JVNL)						6	36	36
19 West Bengal	2142	2331	2424	2484	3398	4047	4277	4497
Sub-Total : (I)	55555	74714	87911	89478	98957	130402	130920	130059
II Eds								
1 Arunachal Pradesh	32	43	41	31	45	61	50	53
2 Goa	263	327	299	323	438	445	397	417
3 Manipur	60	68	85	88	260	281	182	250
4 Mizoram	33	38	56	74	85	106	100	115
5 Nagaland	44	48	54	55	53	55	68	79
6 Pondicherry	147	142	178	150	165	190	211	228
7 Sikkim	18	21	36	23	25	27	27	30
8 Tripura	85	96	111	130	159	162	163	191
Sub-Total : (II)	683	782	860	875	1228	1327	1197	1363
Total :	56238	75496	88771	90354	100185	131729	132117	131421

T & D Losses as percentage of Availability

(%)

	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 Provis.	2000-01 (R.E.)	2001-02 (Plan Est)
I. SEBs							
1 Andhra Pradesh (APTRANSCO)	18.9	33.1	32.5	31.9	35.2	32.9	32.6
2 Assam	26.2	26.4	30.1	40.2	39.2	38.6	30.7
3 Bihar	25.9	25.3	25.4	28.3	27.9	25.0	24.7
4 Delhi	48.0	49.6	42.3	48.7	50.7	47.0	45.0
5 Gujarat	18.3	21.4	21.7	20.1	22.1	20.0	19.2
6 Haryana	31.4	32.8	33.4	33.9	33.8	35.0	33.0
7 Himachal Pradesh	17.5	18.4	19.2	20.1	19.7	18.3	17.4
8 Jammu & Kashmir	48.6	50.0	47.5	47.1	47.0	56.4	46.8
9 Karnataka (KPTCL)	18.5	18.9	18.6	30.2	38.0	36.5	36.0
10 Kerala	20.1	21.4	17.9	17.6	17.4	17.2	17.2
11 Madhya Pradesh	19.5	20.6	19.7	19.5	31.8	31.0	30.0
12 Maharashtra	15.4	17.7	17.1	15.5	30.5	30.0	28.0
13 Meghalaya	17.8	19.5	17.9	20.1	20.6	20.3	20.3
14 Orissa (GRIDCO)	46.9	50.4	49.2	41.9	45.2	49.9	5.3
15 Punjab	18.2	18.9	17.8	16.7	17.2	17.5	17.5
16 Rajasthan(Transco.)	28.5	25.9	26.5	29.4	30.0	29.0	27.7
17 Tamil Nadu	17.0	16.4	16.8	16.9	16.7	16.5	16.3
18 UP(Power corp.)	22.8	27.0	25.5	25.5	42.2	39.8	38.7
19 West Bengal SEB	20.7	20.1	20.0	25.5	29.7	30.0	30.0
Average : (I)	22.2	24.5	24.0	24.8	30.8	29.9	27.8
II EDs							
1 Arunachal Pradesh	36.0	32.6	19.2	30.7	43.0	34.3	30.3
2 Goa	28.5	23.5	23.4	41.1	43.5	32.9	31.6
3 Manipur	21.5	23.0	21.5	59.1	61.9	49.9	50.0
4 Mizoram	27.0	34.4	47.0	45.1	48.3	42.0	40.0
5 Nagaland	30.0	30.5	29.5	40.8	40.6	40.8	42.9
6 Pondicherry	14.5	17.4	13.8	15.6	15.3	14.9	14.6
7 Sikkim	21.0	29.2	20.1	20.1	20.1	20.1	20.0
8 Tripura	30.0	28.8	29.3	39.9	39.8	38.9	38.9
Average : (II)	23.8	23.6	22.2	34.6	35.4	29.3	29.2
Overall Average(I&II)	22.2	24.5	24.0	24.9	30.8	29.9	27.8
All India*	22.27	24.53	24.79	26.45	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, Dadra & N'Haveli, Daman & Diu, Chandigarh, DVC and BBMB

ii) T&D losses for 2001-02 for Orissa indicate for GRIDCO only. Losses for Distribution Companies in Orissa are not available.

Annexure 3.27

Sale of Power

(Mkwh)

	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provi.)	2000-01 (RE)	2001-02 (AP)
I. SEBs						
1 Andhra Pradesh	21033	23944	25232	25809	28418	29781
2 Assam	1960	1877	1753	1809	1916	2060
3 Bihar	6855	7337	7066	7662	7897	9099
4 Delhi (DVB)	6860	7956	8168	8407	9154	10259
5 Gujarat	26696	26783	28828	31178	31435	32693
6 Haryana	9062	8864	9290	9693	10958	11707
7 Himachal Pradesh	2721	2901	3047	3118	3268	3650
8 Jammu & Kashmir	1988	2578	2873	2638	2812	3375
9 Karnataka	15194	17586	15910	16150	17276	19553
10 Kerala	7021	7666	9134	9793	10700	11830
11 Madhya Pradesh	23664	24612	26660	23474	25571	26531
12 Maharashtra	42698	43894	46328	41982	41598	47063
13 Meghalaya	462	551	518	589	606	608
14 Orissa	4877	5241	5169	10642	10822	11400
15 Punjab	17767	18808	21004	21837	22385	23081
16 Rajasthan(Transco.)	14065	15380	16346	16915	17686	18294
Rajasthan(Genco.)					0	0
17 Tamil Nadu	25659	26943	27862	30434	33290	36350
18 UP(Power corp.)	27041	27130	27130	23676	25310	28011
UP(TPG Corp.)				0	0	0
UP(JVNL)				0	0	0
19 West Bengal	9647	9790	9927	9561	10000	10500
Sub-Total-I(SEBs)	265272	279841	292245	295367	311103	335844
II Eds						
1 Arunachal Pradesh	99	111	100	81	102	122
2 Goa	931	1057	1065	1024	1204	1322
3 Manipur	286	322	180	173	182	250
4 Mizoram	124	84	103	114	138	172
5 Nagaland	127	132	129	138	165	182
6 Pondicherry	845	938	1058	1240	1413	1559
7 Sikkim	86	92	101	106	108	119
8 Tripura	259	314	397	406	419	490
9 Others		759	759			
Sub-Total-II(EDs)	2759	3810	3891	3282	3732	4216
Grand Total: (I+II)	268031	283650	296136	298649	314835	340061

Annexure 3.28

Consumer Categorywise Sale of Power, 1996-97

(Mkwh)

		Domes- tic	Comm- ercial	Agri/ irrig.	Indus- try	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	682.6	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 3.29

Consumer Categorywise Sale of Power - 1997-98

(Mkwh)

		Domes- tic	Comm- ercial	Agri/ irrig.	Indus- try	Railway traction	Outside the State/UT	Others	Total
I. SEBs									
1	Andhra Pradesh	4535.00	927.00	9336.00	6824.00	850.00	146.00	1326.00	23944.00
2	Assam	556.10	166.18	25.32	452.75	0.00	5.32	671.24	1876.91
3	Bihar	880.84	429.93	1482.95	3756.92	439.23	129.05	218.37	7337.29
4	Delhi (DVB)	3020.40	855.67	59.65	1867.18	142.52	605.51	1404.91	7955.83
5	Gujarat	2411.00	683.00	10757.00	9817.00	349.00	0.00	2766.00	26783.00
6	Haryana	1821.00	317.00	3843.00	1934.00	114.00	91.00	744.00	8864.00
7	Himachal Pradesh	474.37	134.90	10.53	1182.45	0.00	721.46	377.04	2900.75
8	Jammu & Kashmir	652.71	125.45	439.24	313.74	0.00	0.00	1046.76	2577.90
9	Karnataka	3170.00	535.00	9117.00	3744.00	56.00	0.00	964.00	17586.00
10	Kerala	3726.52	652.36	340.67	2514.98	8.55	0.00	422.69	7665.77
11	Madhya Pradesh	4044.83	692.28	9660.01	6754.35	1256.28	183.87	2020.10	24611.72
12	Maharashtra	5341.00	1139.00	15382.00	14667.00	861.00	255.00	6249.00	43894.00
13	Meghalaya	121.12	37.12	1.42	49.06	0.00	233.74	108.64	551.10
14	Orissa	1557.00	309.00	194.00	2599.00	168.00	0.00	414.00	5241.00
15	Punjab	3368.00	718.00	6050.00	7209.00	0.00	954.00	509.00	18808.00
16	Rajasthan	2435.97	868.75	4980.35	5535.03	206.51	474.34	879.47	15380.42
17	Tamil Nadu	4270.00	1683.00	7275.00	10791.00	391.00	203.00	2330.00	26943.00
18	Uttar Pradesh	7273.00	1926.00	9455.00	6056.00	858.00	475.00	1087.00	27130.00
19	West Bengal	2091.15	931.00	1472.01	2444.71	483.08	19.00	2349.05	9790.00
	Sub-total :(a)	51750.01	13130.64	89881.15	88512.17	6183.17	4496.29	25887.27	279840.68
IIEDs									
1	Arunachal Pradesh	81.36	7.97	0.00	10.00	0.00	0.00	11.99	111.32
2	Goa	243.89	71.89	11.22	611.02	0.00	28.69	89.94	1056.65
3	Manipur	157.87	20.94	8.06	51.55	0.00	0.00	83.77	322.19
4	Mizoram	64.47	7.01	0.00	0.89	0.00	0.00	11.35	83.72
5	Nagaland	75.40	9.07	0.00	20.65	0.00	0.00	26.77	131.89
6	Ponicherry	144.53	48.21	95.14	626.11	0.00	0.00	23.90	937.89
7	Sikkim	48.85	13.98	0.00	13.99	0.00	0.00	15.65	92.47
8	Tripura	119.25	27.52	61.16	36.69	0.00	8.63	61.16	314.41
	Sub-total :(b)	935.62	206.59	175.58	1370.90	0.00	37.32	324.53	3050.54
	Grand total :	52685.63	13337.23	90056.73	89883.07	6183.17	4533.61	26211.80	282891.22

Annexure 3.30

Consumer Categorywise Sale of Power - 1998-99

(Mkwh)

		Domes- tic	Comm- ercial	Agri/ irrig.	Indus- try	Railway traction	Outside the State/UT	Others	Total
I. SEBs									
1	Andhra Pradesh	5090.00	1060.00	9945.00	6630.00	846.00	97.00	1564.00	25232.0
2	Assam	561.4	158.1	54.5	296.4	0.0	0.0	682.6	1752.9
3	Bihar	959.3	409.1	1384.0	3481.5	449.2	165.0	218.2	7066.3
4	Delhi (DVB)	3029.0	314.0	87.0	2988.0	0.0	305.4	1445.0	8168.4
5	Gujarat	2643.0	752.0	12221.0	9697.0	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	1249.3	0.0	713.3	394.5	3046.6
8	Jammu & Kashmir	830.0	160.9	500.0	452.4	0.0	0.0	929.8	2873.2
9	Karnataka	3342.0	608.0	7008.0	3815.0	28.0	0.0	1109.0	15910.0
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	1582.0	349.0	237.0	2478.0	164.0	0.0	359.0	5169.0
15	Punjab	3596.0	785.0	7532.0	7187.0	0.0	1365.0	539.0	21004.0
16	Rajasthan(Transco.)	2653.6	844.2	6032.2	4888.7	179.7	436.9	1311.0	16346.3
17	Tamil Nadu	5280.0	1572.0	7556.0	10086.0	412.0	205.0	2751.0	27862.0
18	UP(Power corp.)	7273.0	1926.0	9455.0	6056.0	858.0	475.0	1087.0	27130.0
19	West Bengal	2499.5	1029.5	1204.9	2548.7	490.1	16.2	2138.0	9926.8
	Sub-total :(a)	56730.2	13265.6	95340.8	87857.7	6143.7	5563.3	27343.6	292244.8
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	NA	58.3	22.0	1064.8
3	Manipur	90.5	10.9	10.7	19.3	0.0	0.0	48.6	180.0
4	Mizoram	80.3	8.9	0.0	1.0	0.0	0.0	12.6	102.8
5	Nagaland	74.0	8.1	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	126.9	30.7	67.4	46.6	0.0	52.0	73.7	397.3
	Sub-total :(b)	902.7	213.4	185.3	1483.7	0.0	110.3	236.2	3132.4
	Grand total :	57632.9	13479.0	95526.1	89341.5	6143.7	5673.6	27579.7	295377.3

Annexure 3.31

Consumer Categorywise Sale of Power, 1999-00

(Mkwh)

		Domes- tic	Comm- ercial	Agri/ irrig.	Indus- try	Railway traction	Outside the State/UT	Others	Total
I. SEBs									
1	Andhra Pradesh	5486.0	1144.0	10222.0	6144.0	891.0	29.0	1893.0	25809.0
2	Assam	612.2	160.8	46.4	271.0	0.0	0.0	718.7	1809.0
3	Bihar	1036.2	415.2	1525.9	3622.8	688.8	145.0	228.4	7662.2
4	Delhi (DVB)	3211.0	522.0	99.0	3124.0	0.0	0.0	1451.0	8407.0
5	Gujarat	2813.0	816.0	14914.0	9147.0	379.0	130.0	2979.0	31178.0
6	Haryana	2108.2	398.1	4458.4	1894.8	101.3	0.0	723.9	9692.5
7	Himachal Pradesh	594.5	148.9	16.5	1295.4	0.0	682.0	380.9	3118.2
8	Jammu & Kashmir	1232.2	157.3	126.5	381.6	0.0	0.0	740.1	2637.7
9	Karnataka	3635.0	1123.0	6309.0	3495.0	28.0	0.0	1560.0	16150.0
10	Kerala	4526.0	819.0	375.0	3447.0	18.0	0.0	608.0	9793.0
11	Madhya Pradesh	3552.0	777.7	9618.9	5631.2	1458.3	18.6	2417.7	23474.4
12	Maharashtra	6455.0	1383.0	10293.0	16393.0	910.0	632.0	5916.4	41982.4
13	Meghalaya	135.2	46.2	0.3	107.7	0.0	175.7	123.8	588.9
14	Orissa	2053.0	405.0	217.0	2372.0	175.0	644.0	4776.0	10642.0
15	Punjab	3811.0	844.0	8233.0	7759.0	0.0	690.0	500.0	21837.0
16	Rajasthan(Transco.) Rajasthan(Genco.)	2852.4	855.3	6559.4	4573.8	220.8	544.0	1309.3	16914.9
17	Tamil Nadu	5853.0	1770.0	8288.0	11029.0	426.0	225.0	2843.0	30434.0
18	UP(Power corp.)	8075.0	1972.0	4487.0	5765.0	974.0	410.0	1993.0	23676.0
	UP(TPG Corp.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	UP(JVNL)	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0
19	West Bengal	2504.8	1033.0	1295.0	2554.0	502.0	19.8	1652.2	9560.8
	Sub-total :(a)	60545.6	14790.3	87084.3	89007.3	6772.0	4345.1	32814.4	295367.0
II EDs									
1	Arunachal Pradesh	56.4	8.5	0.0	4.9	0.0	0.0	11.2	81.0
2	Goa	286.6	78.4	14.6	601.0	NA	23.8	22.0	1024.1
3	Manipur	101.1	14.1	3.0	10.9	0.0	0.1	43.8	173.1
4	Mizoram	79.4	5.3	0.0	1.6	0.0	0.0	27.6	113.8
5	Nagaland	79.7	9.4	0.0	21.2	0.0	0.0	27.9	138.2
6	Ponicherry	179.7	68.7	96.2	868.5	0.0	0.0	26.7	1239.7
7	Sikkim	52.6	18.2	0.0	18.6	0.0	0.0	16.4	105.8
8	Tripura	131.3	31.6	69.4	48.0	0.0	50.0	75.8	406.1
	Sub-total :(b)	966.7	234.2	183.2	1574.6	0.0	73.9	251.3	3281.7
	Grand total :	61512.4	15024.5	87267.5	90582.0	6772.0	4419.0	33065.7	298648.7

Annexure 3.32

Consumer Categorywise Sale of Power, 2000-01 (RE)

(Mkwh)

		Domes- tic	Comm- ercial	Agri/ irrig.	Indus- try	Railway traction	Outside the State/UT	Others	Total
I. SEBs									
1	Andhra Pradesh	6955	1291	11222	6786	937	0	1227	28418
2	Assam	648	170	49	287	0	0	762	1916
3	Bihar	1068	428	1549	3759	710	149	235	7897
4	Delhi (DVB)	3548	578	114	3447	0	0	1467	9154
5	Gujarat	3122	889	14507	9200	394	130	3193	31435
6	Haryana	2359	446	5171	2104	99	0	779	10958
7	Himachal Pradesh	657	160	18	1225	0	613	595	3268
8	Jammu & Kashmir	1276	166	142	427	0	0	801	2812
9	Karnataka	4120	1184	6457	3842	28	0	1645	17276
10	Kerala	4946	895	410	3767	19	0	665	10700
11	Madhya Pradesh	3785	885	10200	6611	1600	19	2471	25571
12	Maharashtra	7521	1575	10937	16894	982	600	3089	41598
13	Meghalaya	137	47	0	118	0	159	146	606
14	Orissa	2166	429	196	2583	201	876	4371	10822
15	Punjab	4074	902	8200	8295	0	360	554	22385
16	Rajasthan(Transco.)	3110	942	6967	4980	247	130	1310	17686
	Rajasthan(Genco.)	0	0	0	0	0	0	0	0
17	Tamil Nadu	6402	1935	9066	12064	466	246	3111	33290
18	UP(Power corp.)	7341	1911	4965	5040	975	533	4545	25310
	UP(TPG Corp.)	0	0	0	0	0	0	0	0
	UP(JVNL)	0	0	0	0	0	0	0	0
19	West Bengal	2700	1179	1360	2827	530	21	1383	10000
	Sub-total :(I)	65934	16011	91529	94256	7188	3836	32349	311103
II EDs									
1	Arunachal Pradesh	69	12	0	7	0	0	14	102
2	Goa	293	84	20	660	NA	48	98	1204
3	Manipur	113	14	3	11	0	0	42	182
4	Mizoram	97	7	0	2	0	0	32	138
5	Nagaland	80	12	0	26	0	0	48	165
6	Ponicherry	205	78	110	990	0	0	30	1413
7	Sikkim	53	21	0	19	0	0	16	108
8	Tripura	148	34	76	52	0	26	83	419
	Sub-total :(II)	1057	261	208	1767	0	74	364	3732
	Grand total :	66992	16273	91737	96023	7188	3910	32713	314835

Annexure 3.33

Consumer Categorywise Sale of Power, 2001-02 (AP)

(Mkwh)

		Domes- tic	Comm- ercial	Agri/ irrig.	Indus- try	Railway traction	Outside the State/UT	Others	Total
I. SEBs									
1	Andhra Pradesh	6691	1409	12045	7408	998	0	1230	29781
2	Assam	694	183	53	309	0	0	822	2060
3	Bihar	1230	493	1784	4330	818	172	271	9099
4	Delhi (DVB)	3959	649	129	3873	0	0	1649	10259
5	Gujarat	3466	969	15015	9281	410	130	3422	32693
6	Haryana	2520	477	5520	2201	106	0	883	11707
7	Himachal Pradesh	726	172	20	1350	0	772	610	3650
8	Jammu & Kashmir	1406	272	172	585	0	0	941	3375
9	Karnataka	4412	1263	7829	4272	28	0	1749	19553
10	Kerala	5697	716	520	4083	17	0	797	11830
11	Madhya Pradesh	3930	835	10580	6801	1700	19	2666	26531
12	Maharashtra	9771	2023	11911	17927	1110	700	3621	47063
13	Meghalaya	138	48	0	188	0	83	150	608
14	Orissa	0	0	0	0	0	960	0	11400
15	Punjab	4281	948	8200	8715	0	360	577	23081
16	Rajasthan(Transco.)	3270	987	7274	5202	266	0	1293	18294
	Rajasthan(Genco.)	0	0	0	0	0	0	0	0
17	Tamil Nadu	6867	2303	10176	12939	500	264	3301	36350
18	UP(Power corp.)	9517	2030	5010	5053	978	533	4889	28011
	UP(TPG Corp.)	0	0	0	0	0	0	0	0
	UP(JVNL)	0	0	0	0	0	0	0	0
19	West Bengal	2821	1232	1421	2964	544	22	1496	10500
	Sub-total :(a)	71396	17009	97660	97481	7475	4015	30368	335844
II EDs									
1	Arunachal Pradesh	80	16	0	9	0	0	17	122
2	Goa	301	90	20	761	NA	50	100	1322
3	Manipur	154	17	4	17	0	0	58	250
4	Mizoram	123	9	0	3	0	0	38	172
5	Nagaland	104	13	0	29	0	0	35	182
6	Ponicherry	226	86	121	1092	0	0	34	1559
7	Sikkim	55	24	0	23	0	0	17	119
8	Tripura	165	38	65	58	0	53	111	490
	Sub-total :(b)	1209	293	210	1992	0	103	410	4216
	Grand total :	72605	17302	97869	99474	7475	4118	30778	340061

Annexure 3.34

Share of Agriculture in Total Sales

(%)

		1992- 93	1993- 94	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999- 2000	2000- 01	2001- 02
		Actual	Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(RE)	(AP)
I. SEBs											
1	Andhra Pradesh	40.90	42.30	47.30	48.40	37.25	38.99	39.41	39.61	39.49	40.45
2	Assam	14.00	2.60	2.60	2.40	2.33	1.35	3.11	2.56	2.56	2.56
3	Bihar	27.20	22.10	21.40	19.40	18.50	20.21	19.59	19.92	19.61	19.61
4	Delhi (DVB)	0.90	NA	NA	NA	0.70	0.75	1.07	1.18	1.25	1.26
5	Gujarat	42.10	42.30	39.30	41.00	37.72	40.16	42.39	47.84	46.15	45.93
6	Haryana	47.10	47.60	44.50	44.70	45.12	43.36	43.49	46.00	47.19	47.15
7	Himachal Pradesh	0.80	0.80	0.60	0.50	0.42	0.36	0.39	0.53	0.55	0.55
8	Jammu & Kashmir	11.80	16.60	18.00	17.60	16.91	17.04	17.40	4.79	5.03	5.09
9	Karnataka	41.20	43.30	45.90	46.10	45.50	51.84	44.05	39.07	37.38	40.04
10	Kerala	4.00	3.80	3.90	4.30	4.69	4.44	4.50	3.83	3.83	4.39
11	Madhya Pradesh	21.50	29.50	32.20	34.80	36.22	39.25	43.86	40.98	39.89	39.88
12	Maharashtra	26.50	25.20	30.30	32.00	32.48	35.04	34.47	24.52	26.29	25.31
13	Meghalaya	0.40	0.30	0.40	0.30	0.31	0.26	0.05	0.05	0.05	0.05
14	Orissa	5.60	5.80	3.20	3.40	3.26	3.70	4.59	2.04	1.81	0.00
15	Punjab	44.60	41.70	37.80	35.80	35.73	32.17	35.86	37.70	36.63	35.53
16	Rajasthan(Transco.)	29.40	30.70	30.40	31.70	33.68	32.38	36.90	38.78	39.39	39.77
17	Tamil Nadu	27.00	25.90	27.00	26.90	26.03	27.00	27.12	27.23	27.23	27.99
18	UP(Power corp.)	38.10	37.50	36.80	36.30	36.24	34.85	34.85	18.95	19.61	17.89
19	West Bengal	11.80	11.20	12.80	13.80	14.16	15.04	12.14	13.55	13.60	13.53
	Average :(I)	30.10	31.50	32.60	32.30	31.09	32.12	32.62	29.48	29.42	29.08
II. EDs											
1	Arunachal Pradesh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Goa	1.50	1.00	1.20	1.10	1.12	1.06	1.07	1.43	1.64	1.51
3	Manipur	2.00	2.40	5.90	1.70	2.50	2.50	5.96	1.75	1.60	1.60
4	Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Pondicherry	12.30	12.40	11.10	11.10	11.17	10.14	9.05	7.76	7.76	7.76
7	Sikkim	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	Tripura	17.00	17.00	16.00	16.10	23.00	19.45	16.96	17.09	18.05	13.19
	Average :(II)	6.50	6.10	6.30	6.20	6.22	4.61	4.76	5.58	5.57	4.97
	Overall :	29.90	31.20	32.40	32.00	30.83	31.75	32.26	29.22	29.14	28.78

Annexure 3.35

Share of Revenue from Agriculture
in Total Sales Revenue

(%)

		1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
I. SEBs									
1	Andhra Pradesh	2.70	1.59	3.18	3.77	3.66	3.43	4.12	4.57
2	Assam	0.80	1.75	2.05	2.98	2.29	1.90	1.99	1.83
3	Bihar	2.10	1.76	1.40	1.22	1.11	1.13	1.04	1.07
4	Delhi (DVB)	NA	NA	NA	1.00	0.20	0.21	0.21	0.21
5	Gujarat	6.80	5.91	4.81	3.88	3.68	3.94	8.29	11.76
6	Haryana	18.40	17.46	15.22	14.13	11.70	8.30	8.51	9.98
7	Himachal Pradesh	0.20	0.21	0.16	0.12	0.12	0.15	0.14	0.13
8	Jammu & Kashmir	6.80	5.62	5.36	5.82	24.99	13.37	13.84	15.12
9	Karnataka	0.80	0.85	1.85	3.98	5.91	6.04	5.25	6.32
10	Kerala	1.10	1.11	1.32	1.95	2.05	1.55	1.36	1.31
11	Madhya Pradesh	0.90	1.24	1.40	1.22	1.17	1.24	1.18	1.18
12	Maharashtra	3.40	3.12	3.68	3.60	3.93	4.49	7.98	7.71
13	Meghalaya	0.20	0.13	0.12	0.10	0.01	0.01	0.02	0.02
14	Orissa	1.10	1.04	0.98	1.21	1.57	1.36	NA	NA
15	Punjab	11.90	11.00	7.42	0.00	0.00	0.00	0.00	0.00
16	Rajasthan(Transco.)	6.90	6.32	5.54	4.62	6.17	6.37	8.10	8.32
17	Tamil Nadu	0.00	0.00	0.23	0.22	0.16	0.16	0.16	0.16
18	UP(Power corp.)	12.90	13.25	10.77	10.09	10.09	5.20	8.18	7.47
19	West Bengal	1.90	2.05	2.05	2.37	1.74	2.23	3.52	4.83
	Average of SEBs:	4.77	4.37	3.98	3.56	3.64	3.21	4.59	5.03
II. EDs									
1	Arunachal Pradesh	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
2	Goa	NA	NA	0.45	0.31	0.63	0.42	0.61	0.65
3	Manipur	NA	NA	6.52	7.09	8.54	4.29	1.82	2.94
4	Mizoram	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
5	Nagaland	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
6	Pondicherry	NA	NA	0.60	0.53	0.43	0.35	0.33	0.33
7	Sikkim	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8	Tripura	NA	NA	15.07	12.20	14.32	12.41	11.64	10.85
	Average EDs	NA	NA	1.17	0.92	1.23	1.12	1.12	1.25
	Overall :	4.77	4.37	3.95	3.54	3.62	3.19	4.55	4.99

**Share of Revenue from Domestic
Sector in Total Sales Revenue**

(%)

		1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
I. SEBs									
1	Andhra Pradesh	13.80	15.40	16.49	18.82	19.70	20.10	23.68	23.42
2	Assam	25.80	16.90	16.52	16.18	16.44	16.72	17.98	16.75
3	Bihar	8.10	7.80	7.51	6.61	7.47	6.31	5.89	6.05
4	Delhi (DVB)	NA	NA	NA	NA	NA	NA	19.56	19.33
5	Gujarat	7.70	7.90	8.07	8.01	9.07	10.64	11.22	11.57
6	Haryana	18.20	18.80	21.61	22.36	26.05	27.43	27.19	26.80
7	Himachal Pradesh	8.60	8.00	7.17	6.57	7.10	9.85	10.32	10.10
8	Jammu & Kashmir	26.30	22.80	22.72	21.79	39.82	50.35	48.22	47.80
9	Karnataka	16.00	15.70	17.86	19.85	23.48	22.28	22.22	25.82
10	Kerala	22.30	24.60	30.31	30.43	29.06	22.59	19.80	17.32
11	Madhya Pradesh	7.00	6.50	6.46	7.18	7.02	10.14	9.71	9.68
12	Maharashtra	7.40	6.90	7.45	8.85	9.75	11.10	16.55	19.07
13	Meghalaya	7.30	10.00	11.73	14.16	16.76	17.28	18.95	16.79
14	Orissa	11.50	10.20	13.45	16.10	16.11	20.76	NA	NA
15	Punjab	16.60	18.30	17.16	17.98	19.43	20.69	21.71	21.85
16	Rajasthan(Transco.)	9.90	9.90	11.22	10.87	11.19	11.98	14.92	15.42
17	Tamil Nadu	11.60	11.70	12.09	12.81	14.71	14.39	14.53	14.41
18	UP(Power corp.)	16.00	14.70	16.82	16.40	16.40	23.04	20.77	21.59
19	West Bengal	9.20	8.50	11.07	12.35	14.76	17.82	17.97	19.11
	Average SEBs	11.40	10.70	11.51	13.91	14.42	15.94	17.20	17.41
II. EDs									
1	Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA
2	Goa	NA	NA	11.11	11.29	11.37	11.97	10.86	11.26
3	Manipur	NA	NA	120.21	139.87	88.91	101.61	74.51	80.15
4	Mizoram	NA	NA	72.25	74.41	99.32	73.94	57.90	58.23
5	Nagaland	NA	NA	46.98	48.11	48.09	49.82	48.14	47.45
6	Pondicherry	NA	NA	9.04	9.08	8.27	8.03	7.86	7.81
7	Sikkim	NA	NA	59.01	54.10	51.60	55.56	53.76	45.83
8	Tripura	NA	NA	40.43	37.20	39.60	30.73	31.00	33.59
	Average EDs	NA	NA	19.28	18.11	16.72	16.80	16.29	17.58
	Overall :	11.40	10.70	11.57	13.94	14.44	15.95	17.19	17.41

Annexure 3.37

Share of Industry in Total Sale of Power

(%)

	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 (Provi.)	2000- 01 (RE)	2001- 02 (AP)
I.SEBS									
1. Andhra Pradesh	32.30	29.05	27.46	32.35	28.50	26.28	23.81	23.88	24.87
2. Assam	27.70	28.36	28.05	26.60	24.12	16.91	14.98	14.98	14.98
3. Bihar	52.80	49.70	51.67	53.89	51.20	49.27	47.28	47.60	47.59
4. Delhi(DVB)	NA	NA	NA	19.15	NA	NA	NA	37.66	37.75
5. Gujarat	35.80	38.39	36.89	36.77	36.65	33.64	29.34	29.27	28.39
6. Haryana	20.70	22.98	23.06	21.50	21.82	20.20	19.55	19.20	18.80
7. Himachal Pradesh	40.50	38.09	36.57	38.96	40.76	41.01	41.54	37.48	36.99
8. Jammu & Kashmir	17.10	16.28	12.50	12.95	12.17	15.75	14.47	15.19	17.33
9. Karnataka SEB	32.20	30.09	28.44	26.06	21.29	23.98	21.64	22.24	21.85
10. Kerala	43.90	44.69	7.17	31.75	32.81	32.75	35.20	35.20	34.51
11. Madhya Pradesh	38.90	36.73	34.42	31.71	27.44	22.99	23.99	25.85	25.63
12. Maharashtra	35.30	35.32	35.73	34.46	33.41	32.23	39.05	40.61	38.09
13. Meghalaya	15.20	23.27	11.97	13.11	8.90	14.85	18.30	19.48	30.93
14. Orissa	53.70	58.47	55.34	49.97	49.59	47.94	22.29	NA	NA
15. Punjab	33.40	36.52	39.68	38.68	38.33	34.22	35.53	37.06	37.76
16. Rajasthan(Transco.)	38.20	40.26	37.42	35.07	35.99	29.91	27.04	28.16	28.44
17. Tamil Nadu	40.20	39.95	39.89	40.26	40.05	36.20	36.24	36.24	35.60
18. UP(Power corp.)	25.30	24.34	24.62	23.26	22.32	22.32	24.35	19.91	18.04
19. West Bengal SEB	25.70	25.18	23.73	23.18	24.97	25.67	26.71	28.27	28.23
All SEBs	34.70	33.57	32.08	32.79	31.63	30.06	30.13	30.30	29.03
II.EDs									
1. Arunachal Pradesh	14.90	22.22	8.00	8.96	8.98	10.45	6.00	7.19	7.26
2. Goa	51.90	56.72	61.07	62.74	57.83	60.46	58.69	54.86	57.55
3. Manipur	19.80	9.81	19.43	19.50	16.00	10.74	6.30	5.90	6.80
4. Mizoram	2.20	1.16	0.98	0.67	1.06	1.01	1.36	1.37	1.96
5. Nagaland	20.80	18.00	17.27	16.12	15.66	15.52	15.37	15.54	16.02
6. Pondicherry	69.70	71.81	67.62	66.19	66.76	68.61	70.06	70.06	70.06
7. Sikkim	16.10	16.67	14.81	10.97	15.13	16.80	17.56	17.25	19.30
8. Tripura	21.00	20.20	20.09	8.00	11.67	11.73	11.81	12.50	11.83
All EDs	46.90	48.70	48.01	45.66	35.99	38.13	47.98	47.36	47.25
Overall :	34.80	33.71	32.23	32.92	31.69	30.17	30.33	30.50	29.25

Annexure 3.38

Per Capita Consumption of Electricity

(Kwh)

	Region/State/U.T.	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000
1	Haryana	400	455	507	491	467	503	504	488.02	503.06	530.82
2	Himachal Pradesh	209	210	208	219	254	288	306	322.62	333.52	339.07
3	Jammu & Kashmir	193	189	188	195	196	201	218	270.23	291.59	267.86
4	Punjab	606	616	684	703	759	760	792	798.22	860.81	921.14
5	Rajasthan	201	231	246	256	270	297	301	314.34	329.35	334.50
6	Uttar Pradesh	166	174	179	186	204	207	197	199.53	195.58	175.80
7	Chandigarh	708	755	715	626	676	717	795	807.76	843.55	823.77
8	Delhi	704	758	823	733	747	608	577	612.68	689.23	653.24
	Northern Region	249	265	282	286	302	308	306	313.12	324.10	317.78
9	Gujarat	469	504	538	587	608	671	694	704.61	723.53	834.66
10	Madhya Pradesh	247	267	281	311	335	367	367	377.51	397.93	351.73
11	Maharashtra	411	434	439	459	500	545	556	577.37	593.79	520.49
12	Goa	452	495	541	588	602	707	724	739.45	740.04	712.45
13	Daman & Diu			1015	1182	1548	2016	2335	2720.69	3599.08	3927.36
14	D & N Haveli	905	980	1175	1392	1574	1811	2379	3226.83	3566.17	3882.81
	Western Region	367	391	406	437	468	513	522	538.27	557.10	534.62
15	Andhra Pradesh	245	191	312	345	374	368	346	391.00	404.27	391.00
16	Karnataka	296	296	303	328	364	363	340	387.09	349.24	387.09
17	Kerala	188	196	200	215	237	249	241	261.80	305.09	261.80
18	Tamil Nadu	323	335	369	386	430	459	468	484.11	497.59	484.11
19	Pondicherry	720	782	856	843	969	958	867	931.85	1010.10	931.85
20	Lakshadweep	154	172	183	207	185	209	234	217.86	231.14	217.86
	Southern Region	272	288	312	335	369	377	366	399.71	405.84	399.71
21	Bihar	110	108	117	126	134	138	138	141.79	152.33	140.77
22	Orissa	271	295	297	313	333	370	309	308.18	312.52	354.60
23	West Bengal	148	151	158	171	175	186	194	202.41	210.57	204.41
24	A & N Island	117	118	162	168	178	202	210	206.84	217.69	222.40
25	Sikkim	119	20	114	123	143	173	172	177.83	184.91	192.38
	Eastern Region	150	156	162	174	182	195	188	192.30	200.86	192.30
26	Assam	94	90	97	95	98	98	104	99.81	122.51	95.46
27	Manipur	97	107	104	111	107	118	128	138.87	74.66	69.50
28	Meghalaya	115	125	129	110	140	143	135	143.47	150.29	160.27
29	Nagaland	75	78	73	68	59	79	88	86.57	81.35	84.74
30	Tripura	47	53	59	60	66	73	80	90.15	109.93	95.48
31	Arunachal Para.	68	58	54	67	66	78	81	101.20	87.39	68.61
32	Mizoram	69	69	91	101	112	128	128	95.14	113.59	120.73
	N.E. Region	89	88	93	92	96	99	104	103.37	117.06	103.37
	ALL INDIA	253	268	283	299	320	336	334	348.50	359.57	354.75

Power Supply Position in India

		Energy Surplus(+)/Deficit(-)%			Peak Surplus(+)/Deficit(-)%		
		1991-92 (Beginning of 8th Plan)	1996-97 (End of 8th Plan)	2001-02	1991-92 (Beginning of 8th Plan)	1996-97 (End of 8th Plan)	2001-02
I.SEBS							
1	Andhra Pradesh	- 6.7	- 22.1	- 8.5	- 15.8	- 23.6	- 19.9
2	Assam	NA	- 10.2	- 0.7	NA	- 0.0	- 10.2
3	Bihar	- 29.7	- 27.5	- 4.0	- 43.7	- 48.4	- 8.6
4	Chattisgarh			- 2.8			- 3.4
5	Delhi(DVB)	- 1.0	- 2.6	- 3.1	- 8.0	- 7.0	- 7.7
6	Gujarat	- 4.3	- 8.1	- 11.5	- 18.3	- 15.6	- 16.3
7	Haryana	- 2.0	- 5.9	- 1.6	- 20.2	- 15.9	- 3.3
8	Himachal Pradesh	- 0.7	- 0.9	- 15.4	- 21.9	- 0.0	NIL
9	Jammu & Kashmir	- 10.8	- 10.0	- 11.1	- 31.3	- 17.1	- 17.4
10	Karnataka	- 23.6	- 27.1	- 12.5	- 28.5	- 28.5	- 17.0
11	Kerala	- 3.3	- 22.7	- 7.4	- 18.3	- 24.0	- 16.9
12	Madhya Pradesh	- 5.6	- 12.0	- 15.4	- 21.3	- 29.1	- 21.6
13	Maharashtra	- 4.5	- 5.6	- 8.8	- 8.7	- 8.7	- 12.5
14	Meghalaya	NA	0.0	+ 0.7	NA	- 0.0	- 3.0
15	Orissa	- 7.0	- 3.0	- 0.1	- 23.9	- 13.8	- 7.3
16	Punjab	- 6.2	- 1.6	- 4.2	- 11.1	- 8.1	- 8.9
17	Rajasthan	- 1.4	- 7.4	- 1.0	- 5.8	- 5.6	- 1.2
18	Tamil Nadu	- 4.8	- 13.8	- 7.1	- 16.7	- 15.9	- 13.1
19	Uttar Pradesh	- 10.3	- 13.9	- 9.9	- 17.8	- 20.0	- 9.2
20	West Bengal	- 9.0	- 2.9	- 0.5	- 31.2	- 11.1	- 5.5
II.EDs							
1	Arunachal Pradesh	NA	- 48.5	- 1.3	NA	- 21.6	NIL
2	Chandigarh	0.0	0.2	- NIL	- 15.8	0.0	NIL
3	Goa	0.0	0.0	- 0.2	- 6.9	0.0	NIL
4	Manipur	NA	- 10.7	- 3.5	NA	- 21.8	- 4.1
5	Mizoram	NA	- 19.2	- 2.1	NA	- 0.0	- 2.7
6	Nagaland	NA	- 16.1	- 0.7	NA	- 7.1	- 4.9
7	Tripura	NA	- 23.8	- 5.3	NA	- 22.7	- 10.3
Overall :		- 7.8	- 11.5	- 7.5	- 18.8	- 18.0	- 12.6

Annexure 3.40

Number of Villages Electrified

(Numbers)

	Total Inhabitants Villages (1991 Census)	Cumulative on 03.1999	Cumulative on 03.2000	Cumulative on 03.2001	Cumulative on 03.2002
States					
1 Andhra Pradesh	26586	26565	26565	26565	26565
2 Arunachal Pradesh	3649	2147	2171	2206	2206
3 Assam	24685	19019	19019	19019	19019
4 Bihar	67513	47845	47888	47925	47950
5 Goa	360	360	360	360	360
6 Gujarat	18028	17940	17940	17940	17940
7 Haryana	6759	6759	6759	6759	6759\
8 Himachal Pradesh	16997	16819	16844	16881	16886
9 Jammu & Kashmir	6477	6315	6315	6315	6315
10 Karnataka	27066	26676	26691	26751	26759
11 Kerala	1384	1384	1384	1384	1384
12 Madhya Pradesh	51806	68259	68346	50286	50286
13 Maharashtra	40412	40412	40412	40349	40349
14 Manipur	2182	1990	2001	2001	2001
15 Meghalaya	5484	2510	2510	2518	2551
16 Mizoram	698	687	691	691	691
17 Nagaland	1216	1163	1196	1212	1212
18 Orissa	46989	34442	35190	35232	35232
19 Punjab	12428	12428	12428	12428	12428
20 Rajasthan	37889	34937	35447	35912	36488
21 sikkim	447	405	405	405	405
22 Tamil Nadu	15822	15822	15822	15822	15822
23 Tripura	855	806	810	813	813
24 Uttar Pradesh	97122	88641	89117	77047	77152
25 West Bengal	37910	29402	29515	29596	29636
26 Chattisgarh	19720			18076	18076
27 Uttaranchal	15681			12488	12488
Total (States)	586165	503733	505826	506981	507773
Total (UTs)	1093	1090	1090	1090	1090
Total (States + UTs)	587258	504823	506916	508071	508863

Annexure-3.41

Energisation of Pump-Sets

(Nos.)

	Pump Sets Potential	Cumulative on 03.1999	Cumulative on 03.2000	Cumulative on 03.2001	Cumulative on 03.2002	
States						
1	Andhra Pradesh	1981000	1884686	1918712	1924543	1934389
2	Arunachal Pradesh	1200	0	0	0	0
3	Assam	254000	3675	3675	3675	3675
4	Bihar	1352200	271090	272629	274911	275785
5	Goa	7800	6590	6658	6867	6867\
6	Gujarat	779800	643757	670422	694163	733000
7	Haryana	470800	410239	411022	420472	427422
8	Himachal Pradesh	14200	5392	5762	6167	6611
9	Jammu & Kashmir	67200	5621	5621	5621	5621
10	Karnataka	1357000	1141824	1181963	1263859	1291124
11	Kerala	435600	353405	373862	392295	405900
12	Madhya Pradesh	2773600	1274873	1298108	1236737	1244719
13	Maharashtra	2449800	2210001	2275531	2327716	2345405
14	Manipur	37600	45	45	45	45
15	Meghalaya	14200	65	65	65	65
16	Mizoram	0	0	0	0	0
17	Nagaland	10000	176	176	176	176
18	Orissa	1214000	73359	74526	74625	74625
19	Punjab	751000	744972	755141	777854	811252
20	Rajasthan	630600	590119	613061	639131	654182
21	sikkim	5000	0	0	0	0
22	Tamil Nadu	1662600	1643915	1680312	1723778	1764085
23	Tripura	14800	1885	2094	2094	2094
24	Uttar Pradesh	2610000	806270	817673	808238	815498
25	West Bengal	650000	107238	109291	110793	111513
26	Chattisgarh				73984	74065
27	Uttaranchal				17521	17521
Total (States)		19544000	12179197	12476349	12785330	13005639
Total (UTs)		50000	37453	37895	38150	38287
Total (States + UTs)		19594000	12216650	12514244	12823480	13043926

CHAPTER 4

FINANCIAL PERFORMANCE

Chapter 4

FINANCIAL PERFORMANCE

4.1 Introduction

This Chapter focuses on the financial performance of State Electricity Boards and Electricity Departments. 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. The data relating to performance parameters such as 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, rate of return, revenue arrears and other related parameters have been analysed.

4.2 Unit Cost of Power Supply

The unit cost of supply of electricity represents the cost incurred by the utility to supply electricity to ultimate consumers. The components considered for calculations include the cost of fuel, O&M expenditure, establishment & administration cost, interest payment liability, depreciation and the cost of power purchase. The average unit cost of supply of utilities has been progressively increasing over the years. During the last one decade, the increase in the unit cost of supply has been steep and reached the level of 327 paise per unit in 2000-01 (RE) as compared to 108.6 paise/Kwh in 1990-91. As per the Annual Plan 2001-02 estimates, it is likely to increase to nearly 350 paise per unit. The increase in the total cost of supply could be attributed mainly to the rise in establishment & administration expenses, interest payment liability and the cost of power purchase. Increase in the various components of the cost structure from 1997-98 to 2001-02 is indicated below in Table 4.1:

Table 4.1
Unit Cost of Power Supply

	(Paise/Kwh)	
	1997-98 (Actual)	2001-02 (AP)
Fuel	55.26	45.84
Power Purchase	87.20	185.05
O&M Expenditure	9.84	9.10
Establishment & Administration	32.60	44.40
Miscellaneous Expenditure	5.22	6.35
Depreciation	18.53	21.08
Interest payment	31.09	38.03
Total	239.73	349.85

Annexures 4.1 to 4.6 represents trends for different SEBs. Revised estimates for 2000-01 indicate that Meghalaya and Himachal Pradesh have lower cost of supply per KWh than others, as these States are totally dependent on hydro-electricity. Table 4.2 shows the share of each component in the unit cost of supply for all SEBs and EDs from 1996-97 to 2001-02.

Table 4.2
Share in Unit Cost of Supply (%)

	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
Fuel	23.4	23.1	20.0	15.2	14.2	13.1
Power Purchase	34.1	36.4	38.8	48.9	50.5	52.9
O & M	4.2	4.1	3.6	2.8	2.7	2.6
Estt. & Admn.	13.7	13.6	14.6	13.3	13.5	12.7
Miscellaneous	2.4	2.2	2.4	3.0	2.4	1.8
Depreciation	7.4	7.4	6.4	6.0	5.9	6.0
Interest	14.0	13.2	13.5	10.3	10.7	11.1

4.3 Components of Cost

All components of cost mentioned above have been taken into account in the determination of the cost of supply. In case of reforming states, the cost estimates comprises the cost of supply of transmission and distribution entities and does not include the cost incurred by the generation companies formed after the reforms. In cases, where the reforms have not started, the cost of supply has estimated for the SEBs. The exclusion of cost incurred by the generation companies in case of reforming states from these estimates has significantly affected the share of various components of average cost of supply. While the cost of power purchase has increased significantly, other components have shown a declining trend.

4.3.1 Expenditure on Fuel

The share of expenditure on fuel in the total cost of supply has started declining after the beginning of reforms and restructuring process in the power sector since 1996-97, though in real terms the cost of fuel has been increasing. This is seen as one of the possible reasons for the decline in the share of fuel cost in the total cost of supply. For example, the states of Andhra Pradesh, Haryana, Orissa, Karnataka, Rajasthan and U.P have restructured their SEBs and formed separate generation, transmission and distribution companies and the above estimates does not include the cost of fuel of the generation companies in those states. The estimated fuel cost for 2001 -02 (AP) works out to around 13.1% as compared to 23.4% in 1996-97. 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.

The specific coal consumption per Kwh in the thermal plants of the SEBs has been around 0.73 Kg to 0.77 Kg since 1992-93. There are, however, large inter-State variations as indicated in Annexure 4.7. The secondary oil consumption in 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 3.48 ml/Kwh during 2000-01 (RE). The average specific oil consumption in case of Bihar, Delhi, Haryana and Assam is higher than that of all-utilities average. On the other hand, Andhra Pradesh, Karnataka Power Corporation, Maharashtra, Rajasthan and Punjab have lower consumption. Madhya Pradesh has achieved a significant reduction in its secondary oil consumption in the last 5 years.

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	7.82	53.4	3.7
1993-94	0.77	5.61	64.2	3.5
1994-95	0.77	6.64	66.6	4.0
1995-96	0.76	10.80	70.1	6.8
1996-97	0.76	5.51	82.5	4.2
1997-98	0.76	4.17	92.1	3.7
1998-99	0.75	4.25	94.1	3.4
1999-2000	0.74	3.71	94.8	3.5
2000-01 (RE)	0.76	3.48	100.3	4.3
2001-02 (AP)	0.74	3.59	105.5	4.8

The cost of coal per unit of generation has increased from 53.4 paise/Kwh in 1992-93 to 100.3 paise/Kwh in 2000-01 (RE). It is likely to increase further to 105.5 paise/Kwh in 2001-02. 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 4.3 paise/Kwh in 2001-02 (RE). This could be because of specific R&M programmes, better maintenance practices and higher level of Plant utilisation.

4.3.2 Expenditure on Power Purchase

The share of expenditure on purchase of power has been increasing since the beginning of reforms and restructuring of SEBs in 1996-97 and constitutes the largest component in total cost of supply of electricity. In the case of reforming states, except the Central Utilities and IPPs, the Transmission & Distribution Utilities formed after the restructuring of SEBs now purchase power from the newly set up generation companies in the States. The cost of purchase as a proportion of the average unit cost increased from 27.9% in 1992-93 to nearly 52.9% in 2001-02. The average rate of payment for purchase of power from various sources as steadily increased from 76 paise/Kwh in 1992-93 to 176 paise/Kwh in 2000-01 (RE). It was expected to increase to 194 paise/Kwh in 2001-02. The inter-State variations can be seen from Annexure 4.12. This could partly be due to increase in share of power purchase by the SEBs from the Central Sector utilities and to a certain extent from the IPPs.

4.3.3 Expenditure on O&M Works

The share of O&M in the average unit cost of supply for 19 utilities and Electricity Departments has shown a downward trend from 4.9% in 1993-94 to 2.7% in 2000-01 (RE). The O&M expenditure in case of generation companies for 2000-01 is reported to be 6.81%. 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 Tamil Nadu, Jammu & Kashmir, Andhra Pradesh, Karnataka, Haryana, Assam and Gujarat. The state-wise details are given in Annexure 4.13.

4.3.4 Expenditure on Establishment and Administration

Establishment and Administration charges comprise mainly the wages and salaries of staff and pension payments in case of certain states. Its share in the unit cost of supply has declined from 15.2% in 1992-93 to 12.9% in 1995-96 and then increased to 14% during 1998-99. This increase may partly be due to the revision of pay scales after the Fifth Pay Commission Award. Since 1999-2000 the share of establishment and administration expenditure has again started declining. The declining trend could be because of improved productivity in terms of improvement in the number of employees for every one million Kwh of energy sold and number of employees for every thousand consumers. State-wise details can be seen at Annexure 4-14.

The number of employees in the State utilities and EDs, including generation companies, has been declining in the last few years and are reported to have fallen from 9.96 lakh in 1997-98 to 9.45 in 2000-01 (RE). Consequently, 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 2.82 in 2000-01 (RE), while the number of consumers increased from 73 million in 1992-93 to 111.14 million in 2000-01 (RE). As a result, the number of employees per thousand

consumers declined from a level of 13.3 in 1992-93 to 8.0 in 2000-01. 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.

4.3.5 Nature of Fixed Costs

The share of fixed costs, viz., depreciation and interest payments, in average cost of supply declined from 25% in 1992-93 to 18% in 2000-01 (RE). While the share of depreciation declined from 9.2% in 1994-95 to 5.88% in 2000-01 (RE), the share of interest cost, i.e. interest payable by SEBs to the financial institutions and the State Governments, come down about 10.7% in 2000-01 (RE) from a level of 17.5% in 1992-93. The share of interest liability in total cost for generation companies is estimated at 18.7% in 2000-01 (RE). State-wise details can be seen at Annexures 4-15 and 4-16.

4.4 Average Tariff and Revenue Realization

The average tariff here represents the tariff charged by the utilities to the ultimate consumers. A sharp increase in the average tariff has been observed, particularly, from the early 90's. The average tariff is estimated to reach a level of 240 paise per unit in 2001-02 from the level of 165 paise in 1996-97. While Annexure 4.21 gives the average tariff from 1990-91 to 2001-02 (AP), consumer category-wise tariff is presented in Annexures 4.22 to 4.26 for the years 1997-98 to 2001-02 (AP).

4.5 Consumer Category-wise Average Tariff

Table 4.4 gives the consumer category-wise average tariff for electricity sale from 1996-97 to 2001-02 (AP).

Table 4.4
Consumer Category-wise Average Tariff (Paise/Kwh)

	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)	1999-2000 (Prov.)	2000-01 (RE)	2001-02 (AP)
Domestic	105.7	136.2	139.1	160.7	183.1	195.6
Commercial	239.1	293.6	330.2	369.9	404.2	426.3
Agriculture	21.2	20.2	21.0	22.6	35.4	41.6
Industry	275.5	312.7	322.8	342.0	366.5	378.7
Traction	346.8	382.2	410.3	415.3	435.9	449.2
Outside State	151.4	138.1	163.8	190.1	187.9	194.4
Overall	165.3	180.3	186.8	207.0	226.3	239.9 lt

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 has increased, though at varying rates. The increase in case of agricultural sector is estimated to be sharp and is likely to increase from a level of 22.6 paise per unit in 1999-2000 to 41.6 paise in 2001-02 (AP). This could be because of two reasons:
 - 1. The attempt by the reforming states to make realistic assessment of T&D losses in the power system and the change in consumption pattern in the agriculture sector.
 - 2. The increase in average tariff charged to the agriculture consumers because of the tariff awards recently given by the State Electricity Regulatory Commissions. State-wise details are at Annexures 4-27 & 4-28.

4.6 Unit cost-revenue comparison

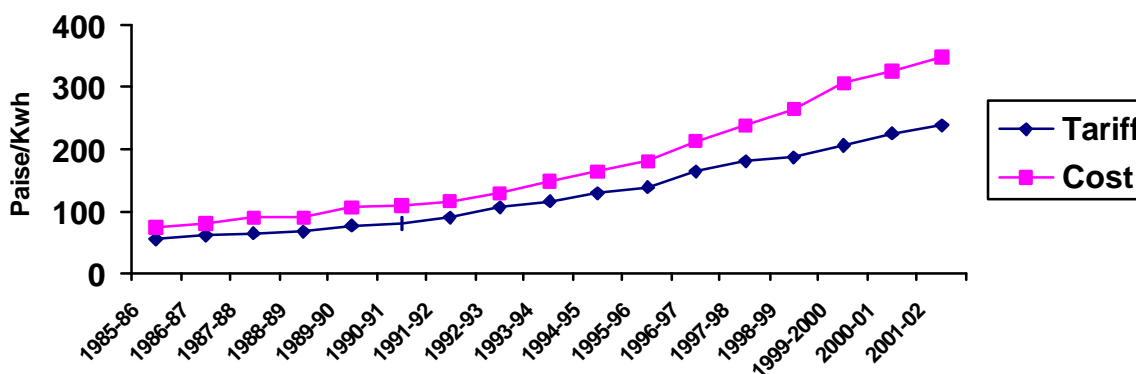
Though the average tariff has increased substantially during the past few years, the rise has not been commensurate with the increase in the cost of supply. As a result, the gap between the cost of supply and average tariff has been widening over the years. The gap has increased from a level of 50 paise in 1996-97 to about 110 paise in 2001-02. The level of recovery, therefore, has declined from 77% in 1996-97 to 69% in 2001-02. Though the number of consumers and the quantum of sales have increased in this period, the increase in consumers has been mainly in the domestic and agriculture sectors, who are getting power supplies at subsidised rates. This could be one of the reasons for the widening gap between average cost of supply and average tariff. Table 4.5 indicates average recovery of cost through tariff. This has also been shown in the Figure 4.1.

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).

Table 4.5
Recovery of Cost Through Tariff

	Average Cost (Paise/Kwh)	Average Tariff (Paise/Kwh)	Recovery as per- centage 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	263.1	186.8	71.0
1999-2000	305.1	207.0	67.8
2000-01	327.3	226.3	69.1
2001-02	349.9	239.9	68.6

Figure 4.1
Average Cost Vs Average Tariff



4.7 Commercial Profit/Loss

The commercial loss of a SEB is the gap between 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. The total expenditure includes payments towards depreciation and interest payable to the State Government as well as financial institutions. The commercial losses (without subsidy) reported here pertain to that of the SEBs and the Transmission and Distribution utilities formed after reforms in the states. These losses increased from Rs.4560 crore in 1992-93 to Rs.25259 crore in 2000-01 (RE) and are projected to increase to Rs. 33177 crore in 2001-02 (AP). The details of the individual SEBs can be seen in Annexure 4.30 to 4.32. The total commercial losses of SEBs with subsidy for the period 1996-97 to 2001-02 are indicated in the Table 4.6.

Table 4.6
Commercial Losses of SEBs

Rs. (Crore)

Year	Total Revenue	Revenue Expenditure	Gross Operating	Deprecia- tion	Net Operating Surplus	Total Interest Payable	Commercial Profit(+) /Loss(-)
1996-97 (Actual)	52567.42	44508.29	8059.13	4840.85	3218.28	7892.59	-4674.31
1997-98 (Actual)	59620.68	53250.66	6370.02	5199.94	1170.08	8768.03	-7597.95
1998-99 (Actual)	66475.06	61068.07	5406.99	5465.18	-58.19	10450.56	-10508.75
1999-2000 (provi.)	75095.42	74952.49	142.93	5897.59	-5754.66	9333.48	-15088.14
2000-01 (RE)	84015.73	84751.09	-735.36	6139.42	-6874.78	10918.94	-17793.72
2001-02 (AP)	92817.71	97691.84	-4874.13	7090.54	-11964.67	12872.55	-24837.22

4.8 Uncovered Subsidy and Cross Subsidization

The level of commercial losses of the SEBs utilities depend largely on the effective subsidies incurred towards sales to agriculture and domestic sectors, efforts to neutralise them through cross subsidisation and the level of subventions provided by the State Governments. Table 4.7 summarizes the level of uncovered subsidy for the past five years after adjusting the surplus generated from other sectors and subvention provided by the states. Annexures 4.33 to 4.38 give state-wise details regarding subsidy for agricultural, domestic and inter-state sales, subsidy after the introduction of the 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.

Gross Subsidy on energy sales has been increasing over the years because of the policy of the some of the states to provide electricity at subsidised rates to agriculture and domestic consumers. The gross subsidy on agriculture, domestic and inter-state sales is likely to increase from a level of Rs. 7449 crore in 1991-92 to Rs. 43060.10 crore in 2001-02 (AP).). 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 2001-02 Annual Plan Proposals indicate the likely subvention from the State Governments as Rs. 8339.62 crore.

Table 4.7
Subsidy for Agriculture and Domestic Sector & uncovered subsidy

(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 (Actual)	15585.20	4386.01	238.75	20209.96	6630.60	13579.36	7774.33	5805.03
1997-98 (Actual)	17706.67	5258.43	457.13	23422.23	6364.75	17057.48	9010.87	8046.61
1998-99 (Actual)	20693.87	6332.48	455.88	27482.23	10351.55	17130.68	8345.26	8785.42
1999-2000 (Provi.)	22508.61	8121.11	373.56	31003.28	11264.53	19738.75	5307.06	14431.69
2000-01 (RE)	24699.18	10036.07	344.60	35079.85	7465.33	27614.52	5747.23	21867.29
2001-02 (AP)	28123.27	12238.51	359.81	40721.59	8339.62	32381.97	5743.55	26638.42

The SEBs makes 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. However, it is observed that such an option is also narrowing down and the level of cross subsidisation has been coming down over the years. As can be seen from the Table 4.7, the surpluses generated by way of cross subsidization is likely to come down from a level of Rs. 9011 crore in 1997-98 to Rs. 5759.01 crore during 2001-02. This could be due to two major reasons:

1. The tariff charged to industrial and commercial consumers has been one of the highest in developing countries and SEBs resort to load shedding during peak times. As a result major industry has been encouraged to set up their own captive plants.
2. The declining share of industrial consumption in the overall consumption. Table 4.8 indicates the extent of cross subsidization from these sectors.

Table 4.8 indicates how the level of cross subsidisation has been declining over the years. 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, sharply declined to 16.7% by 2000-01 (RE). It is expected to further decline to 14.3% in 2001-02. This shows that the 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 has a negative impact on industrial and commercial sectors affecting the competitiveness of these sectors.

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)	9369.90	3911.00	41.7
1993-94 (A)	11096.40	4522.50	40.8
1994-95 (A)	13477.80	5379.20	39.9
1995-96 (A)	16830.40	6333.70	37.6
1996-97 (A)	19971.20	7774.30	38.9
1997-98 (A)	24279.10	9010.90	37.1
1998-99 (A)	28805.61	8309.99	28.8
1999-2000 (Provi.)	32771.12	5263.78	16.1
2000-01 (RE)	36986.41	5791.43	15.6
2001-02 (AP)	42700.29	5759.01	13.5

“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 Normal Central Plan Assistance to states and UTs (Rs. 11749 crore) to States in that year. This is likely to increase to Rs. 34735.93 crore in 2001-02 (AP), which could be 71.02 of Normal Central Plan Assistance (Rs. 48905.63 crore) to States. Even if we consider Rs. 5759.01 crore surplus generated by the SEBs by way of cross-subsidization from other sectors, the uncovered subsidy will be of the order of Rs. 28976.92 crore for the year 2001-02. Introduction of the national minimum agricultural tariff of 50 paise/Kwh would generate additional revenue of Rs. 1984 crore during the year 2001-02. It is, therefore, suggested that State Government should take policy initiatives to reduce the gap between the cost of supply and average tariff.

4.9 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.

There has been, in general, a deterioration in the ROR of the SEBs (without subsidy) from (-)12.7% in 1992-93 to (-)44.1% in 2001-02. Though subvention received from the State Governments improved the ROR, it still

remains negative. If the suggested national minimum agricultural tariff of 50 paise/Kwh had been implemented by all SEBs, the ROR would still be (-)38% in 2001-02. For SEBs to achieve financial break-even, they have to mobilise substantial revenue. Table 4.10 brings out the additional revenue mobilisation required by SEBs to achieve break-even ROR and 3% ROR or additional revenue mobilized with all-India minimum agricultural tariff of 50 paise/Kwh is also indicated. State-wise details are at Annexures 4.47 to 4.49.

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	(-) 8.0	(-) 19.6	(-) 12.4
1997-98	(-) 12.5	(-) 22.9	(-) 15.6
1998-99	(-) 17.2	(-) 34.2	(-) 26.4
1999-00 (Provi.)	(-) 24.7	(-) 43.1	(-) 36.0
2000-01 (RE)	(-) 27.5	(-) 39.1	(-) 32.0
2001-02 (AP)	(-) 33.0	(-) 44.1	(-) 37.6

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	5248.9	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	2728.5
1998-99	20860.3	22690.8	2753.7
1999-2000 (Provi.)	26352.7	28186.8	2510.9
2000-01(RE)	25259.1	27197.2	2116.1
2001-02 (AP)	33176.8	35432.5	1984.0

If all 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.1984 crore in 2001-02 (AP). Their resources could improve to over Rs.33176.8 crore at 0% ROR and over Rs.35432.5 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 in providing 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 tariff by about 110 paise/Kwh for achieving 0% ROR, and by about 117 paise/Kwh for achieving 3% ROR in 2001-02. However, there are large inter-state variations in this regard. The increase required (for achieving 0% ROR) is as high as 338 paise for J&K, 187 for Assam, 187 paise for Haryana, 170 paise for Delhi and 147 paise for Rajasthan. As against this, the tariff increase required for Himachal Pradesh is 21paise per unit only.

4.10 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 1995-96. The net IR increased from a level of (-) Rs.161.5 crore in 1992-93 to (-) Rs. 15620.6 crore in 2000-01 (RE). The position varies from one SEB to another as indicated in Annexure 4-43.

4.11 Revenue Arrears and Outstanding Dues

The revenue arrears outstanding of various State utilities have been increasing over the years. These arrears are reported to have increased from Rs.9014 crore in 1994-95 to Rs. 24773.1 crore in 1999-2000, which works out to about 40.4% of the total revenue in that year. Also there are wide inter-State variations as indicated in Annexure 4.52. States like Bihar, Meghalaya and Jammu & Kashmir have outstanding dues of more than 230%, 195% and 150% of their annual sales turnover for 1999-00 whereas the figure is 7.7% for 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 28th February, 2002 are reported to be over Rs.34,135.3 crore. The dues are particularly large in the case of certain SEBs e.g. Uttar Pradesh (over Rs.5458 crore), Delhi (over Rs. 4284 crore), Bihar (over Rs.4015 crore), Madhya Pradesh (over Rs. 3736 crore) and West Bengal (over Rs. 3237 crore). The receivables of certain Central Sector undertakings are quite

substantial. These are NTPC - Rs.22851 crore, NHPC - nearly Rs.2237 crore, REC - nearly Rs.3937 crore and DVC Rs. 3068 crore.

4.12 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.3125 crore in 2000-01 (RE). As indicated in the state-wise details in Annexures 4.53 & 4.54, Gujarat accounted for 36% of the total SED collection in 2000-01 (RE). The average incidence of electricity duty on the sale of electricity has been about 10.4 paise per Kwh in 2000-01 (RE).

4.13 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/deficit 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. This is estimated to have increased to Rs.308 crore in 2001-02. State-wise details are given in annexure 4.56

It is 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 has been slow. The progress of reforms in various states has been discussed in the next chapter.

Annexure 4.1(a)

Cost of Power Supply, 1974-75 to 2001-02

(Paise/Kwh)

SEBs	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.)

Annexure 4.1 (b)

Cost of Power Supply, 1974-75 to 2001-02

(Paise/Kwh)

SEBs	1980-81 Actual	1981-82 Actual	1982-83 Actual	1983-84 Actual	1984-85 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.)

Annexure 4.1 (c)

Cost of Power Supply, 1974-75 to 2001-2002

(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.)

Annexure 4.1 (d)

Cost of Power Supply, 1974-75 to 2001-2002

(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	156.1
2. Assam	249.59	281.24	255.22	252.65	299.30	356.1
3. Bihar	168.97	176.53	185.67	200.05	232.84	252.4
4. Delhi (DVB)	137.89	144.06	164.12	NA	NA	329.8
5. Gujarat	110.11	132.28	146.59	158.40	171.63	181.5
6. Haryana	103.66	115.47	134.40	165.40	179.53	208.7
7. Himachal Pradesh	94.77	118.19	114.31	142.80	126.60	111.5
8. Jammu & Kashmir	125.59	172.34	165.46	209.13	230.80	242.5
9. Karnataka SEB	82.55	92.02	96.77	112.10	121.11	152.3
10. Kerala	68.17	81.30	87.30	98.32	108.84	134.5
11. Madhya Pradesh	116.44	121.53	141.44	157.80	167.18	181.6
12. Maharashtra	107.44	124.51	138.95	152.24	162.02	185.3
13. Meghalaya	137.28	107.06	110.09	97.75	139.01	147.4
14. Orissa	71.43	71.77	98.80	133.46	185.70	227.5
15. Punjab	106.79	98.77	122.00	145.16	165.06	179.7
16. Rajasthan	114.59	113.31	138.24	163.80	196.52	213.2
17. Tamil Nadu	114.32	103.33	124.52	144.72	152.02	170.9
18. Uttar Pradesh	110.04	119.51	153.42	169.44	177.53	192.0
19. West Bengal SEB	157.19	163.69	161.90	170.05	185.21	189.4
Average :	108.59	116.80	128.15	149.12	163.40	179.6

Contd.

Annexure 4.1 (e)

Cost of Power Supply, 1974-75 to 2001-02

(Paise/Kwh)

SEBs	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 Provi.	2000-01 RE	2001-02 (AP)
1. Andhra Pradesh						
i) APSEB/APTRANSCO	213.8	239.7	287.6	313.8	343.4	360.7
2. Assam	337.3	457.2	450.6	432.9	556.8	589.1
3. Bihar	290.6	316.0	346.2	365.1	391.8	377.1
4. Delhi (DVB)	360.9	384.7	455.4	487.2	474.7	469.6
5. Gujarat	207.4	247.6	277.2	313.1	354.5	365.4
6. Haryana	240.6	293.4	299.2	349.5	403.7	411.9
7. Himachal Pradesh	143.0	166.0	192.9	254.4	238.4	235.4
8. Jammu & Kashmir	286.2	293.0	325.3	379.8	432.3	412.3
9. Karnataka SEB	187.3	179.4	242.6	279.6	324.6	374.6
10. Kerala	161.3	196.0	179.2	240.4	303.0	347.3
11. Madhya Pradesh	216.2	231.5	251.1	314.4	314.4	324.9
12. Maharashtra	206.9	215.6	223.3	298.8	318.7	357.5
13. Meghalaya	159.6	179.9	227.9	226.4	236.0	265.0
14. Orissa						
i) OSEB/GRIDCO	322.6	351.7	374.1	162.0	177.2	184.9
15. Punjab	187.3	217.2	236.2	260.1	274.5	285.2
16. Rajasthan(Transco.)	234.5	258.6	284.3	336.1	341.3	368.2
17. Tamil Nadu	185.0	208.1	230.6	255.2	270.8	309.8
18. UP(Power corp.)	222.3	253.3	253.3	359.0	361.1	383.6
19. West Bengal SEB	205.4	252.5	300.4	332.7	344.3	376.8
Average of SEBs :	215.8	240.2	263.4	305.3	327.3	350.3
II.EDs						
1. Arunachal Pradesh	397.7	446.6	729.8	1043.1	943.3	800.2
2. Goa	149.0	166.0	212.8	304.6	341.5	342.3
3. Manipur	242.7	128.8	251.0	476.6	690.8	581.1
4. Mizoram	343.9	585.0	467.0	662.3	530.2	530.4
5. Nagaland	357.0	346.9	484.8	496.5	488.9	411.0
6. Pondicherry	145.6	154.0	172.1	188.4	197.8	202.8
7. Sikkim	157.6	176.2	199.1	221.5	271.7	281.0
8. Tripura	297.7	244.7	184.6	251.5	328.1	306.6
Average of EDs	199.3	196.4	233.2	299.2	330.6	322.8
All India Average	215.6	239.7	263.1	305.1	327.1	349.9

Annexure 4.2

Cost Structure of SEBs, 1997-98 (Actual)

(Paise/Kwh)

SEB/ED	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	Total
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

Annexure 4.3

Cost Structure of SEBs, 1998-99 (Actual)

(Paise/Kwh)

SEBs	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	Total
1. Andhra Pradesh	60.76	102.82	8.62	30.77	11.39	18.19	55.05	287.60
2. Assam	30.32	142.05	15.03	107.09	8.65	42.70	104.76	450.60
3. Bihar	36.02	188.94	20.77	56.98	0.00	25.20	18.26	346.18
4. Delhi(DVB)	34.32	327.14	9.47	45.80	0.00	6.24	32.41	455.38
5. Gujarat	93.83	105.42	5.97	27.37	0.00	19.36	25.29	277.23
6. Haryana	21.27	167.37	9.59	50.67	7.58	16.17	26.57	299.22
7. Himachal Pradesh	0.00	55.35	20.49	68.63	0.33	7.06	41.01	192.87
8. Jammu & Kashmir	0.82	229.95	5.29	31.75	0.00	15.19	42.32	325.32
9. Karnataka SEB	6.32	143.33	8.17	43.26	1.27	15.33	24.94	242.63
10. Kerala	4.50	61.63	5.27	47.69	14.88	13.11	32.15	179.24
11. Madhya Pradesh	45.62	83.87	9.43	40.93	5.86	15.68	49.76	251.14
12. Maharashtra	71.76	61.11	12.13	28.36	9.30	22.49	18.15	223.31
13. Meghalaya	0.00	10.54	25.72	95.20	0.00	27.67	68.77	227.89
14. Orissa (GRIDCO)	0.00	237.76	9.20	59.59	5.19	29.00	33.32	374.07
15. Punjab	68.65	44.35	7.34	52.24	1.89	15.40	46.36	236.23
16. Rajasthan(Transco.)	44.36	114.58	7.85	27.79	27.65	17.51	44.58	284.33
17. Tamil Nadu	77.54	64.56	5.54	44.12	5.38	15.90	17.52	230.56
18. UP(Power corp.)	45.09	71.90	12.42	33.83	0.56	27.95	61.56	253.31
19. West Bengal SEB	31.65	172.91	8.02	34.22	6.74	13.06	33.77	300.36
Average of SEBs	53.29	101.59	9.28	38.41	6.39	18.70	35.76	263.42
II.EDs								
1. Arunachal Pradesh	47.07	61.83	116.33	274.21	0.00	92.34	138.01	729.80
2. Goa	0.00	174.34	8.75	22.32	0.00	2.63	1.85	209.90
3. Manipur	1.56	52.46	27.79	21.28	0.00	71.96	75.91	250.96
4. Mizoram	35.42	205.51	98.47	78.14	1.65	0.00	47.78	466.97
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	29.62	84.23	77.50	0.00	0.00	0.00	199.09
8. Tripura	34.19	32.35	20.14	50.14	0.00	29.70	18.10	184.62
Average of EDs	7.34	136.48	20.49	34.81	0.26	15.88	13.24	228.50
All India Average	52.80	101.96	9.40	38.37	6.33	18.67	35.52	263.05

Annexure 4.4

Cost Structure of SEBs, 1999-00 (Provisional)

(Paise/Kwh)

SEBs	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	Total
1. Andhra Pradesh	0.00	240.41	5.15	26.71	-2.58	11.68	32.46	313.83
2. Assam	34.73	121.12	15.72	114.39	10.96	44.01	92.01	432.94
3. Bihar	28.99	222.52	17.58	54.58	#REF!	24.11	17.35	365.12
4. Delhi(DVB)	38.91	347.97	10.11	43.48	0.00	8.67	38.07	487.20
5. Gujarat	87.79	143.66	5.40	31.20	0.00	18.96	26.14	313.14
6. Haryana/HVPN	3.85	244.34	9.68	54.27	-1.19	16.15	22.36	349.46
7. Himachal Pradesh	0.00	93.02	23.31	81.70	0.58	7.52	48.27	254.40
8. Jammu & Kashmir	0.00	267.02	6.17	40.90	0.00	16.54	49.17	379.80
9. Karnataka SEB	9.76	169.09	9.58	49.72	1.02	17.58	22.85	279.60
10. Kerala	12.37	83.66	5.94	53.12	26.31	14.69	44.34	240.44
11. Madhya Pradesh	56.65	111.77	10.27	45.90	10.47	23.73	55.56	314.35
12. Maharashtra	79.29	106.41	13.30	36.33	11.95	29.41	22.06	298.76
13. Meghalaya	0.00	20.07	24.79	95.24	0.00	25.54	60.80	226.44
14. Orissa (GRIDCO)	0.00	112.95	2.26	9.88	0.17	7.92	28.86	162.03
15. Punjab	83.08	44.73	8.31	52.24	1.55	19.27	50.91	260.10
16. Rajasthan(Transco.)	56.99	124.60	9.10	29.85	45.17	20.77	49.59	336.06
17. Tamil Nadu	76.31	81.84	3.98	47.07	8.95	17.98	19.10	255.23
18. UP(Power corp.)	0.00	249.22	7.42	37.10	25.61	28.15	11.51	359.00
19. West Bengal SEB	38.28	182.77	9.22	39.37	8.34	14.60	40.09	332.66
Average of SEBs	46.69	148.88	8.47	40.50	9.22	19.97	31.60	305.33
II.EDs								
1. Arunachal Pradesh	77.33	182.71	177.15	308.83	0.00	124.15	172.95	1043.11
2. Goa	0.00	253.17	7.49	26.95	0.00	2.93	1.91	292.45
3. Manipur	1.04	98.11	42.58	60.55	0.00	181.78	92.56	476.63
4. Mizoram	37.10	327.80	92.56	80.43	1.32	0.00	0.00	539.21
5. Nagaland	0.29	206.22	62.23	112.81	4.20	0.00	0.00	385.75
6. Pondicherry	0.00	170.62	1.70	4.85	0.00	11.21	0.00	188.38
7. Sikkim	10.40	28.35	97.42	85.33	0.00	0.00	0.00	221.51
8. Tripura	55.52	53.55	30.68	62.34	0.00	29.10	20.26	251.47
Average of EDs	10.47	180.73	22.36	39.06	0.22	21.40	12.25	286.49
All India Average	46.29	149.23	8.63	40.48	9.12	19.98	31.39	305.12

Annexure 4.5

Cost Structure of SEBs, 2000-2001 (RE)

(Paise/Kwh)

SEBs	Fuel Purchase	Power	O & M Admn.	Estt/exp.	Misc. ciation	Depre-	Interest	Total
1. Andhra Pradesh	0.00	250.86	5.29	26.29	5.59	13.42	41.91	343.35
2. Assam	54.47	200.84	15.96	116.40	10.94	45.08	113.07	556.75
3. Bihar	26.93	217.27	17.57	89.25	0.00	25.33	15.46	391.79
4. Delhi(DVB)	40.30	326.12	10.38	42.72	0.00	10.83	44.33	474.69
5. Gujarat	101.00	163.45	5.89	34.03	0.00	20.17	29.93	354.47
6. Haryana/HVPN	3.41	294.40	8.56	50.13	3.06	15.25	28.88	403.70
7. Himachal Pradesh	0.00	89.25	27.53	78.26	0.00	7.69	35.67	238.40
8. Jammu & Kashmir	1.54	313.44	6.64	41.63	0.00	16.46	52.63	432.34
9. Karnataka SEB	0.00	222.85	8.63	49.54	1.16	17.31	25.07	324.56
10. Kerala	21.98	137.82	5.85	61.05	5.79	14.08	56.47	303.05
11. Madhya Pradesh	63.94	108.68	10.52	44.58	10.51	24.59	51.59	314.41
12. Maharashtra	82.64	101.21	15.00	42.44	13.60	33.74	30.06	318.69
13. Meghalaya	0.00	19.37	26.30	103.96	0.00	26.04	60.35	236.03
14. Orissa (GRIDCO)	0.00	126.64	2.44	11.19	0.23	8.11	28.54	177.16
15. Punjab	82.76	52.98	9.29	53.32	1.56	20.20	54.42	274.53
16. Rajasthan(Transco.)	21.91	192.08	5.50	34.64	29.57	18.63	39.02	341.35
17. Tamil Nadu	82.13	95.82	4.31	47.76	1.54	17.88	21.34	270.77
18. UP(Power corp.)	0.00	240.41	8.53	51.83	26.12	15.56	18.61	361.06
19. West Bengal SEB	36.90	190.21	10.22	41.84	8.77	14.41	41.93	344.30
Average :	46.78	164.60	8.73	44.30	8.01	19.73	35.10	327.25

II.EDs

1. Arunachal Pradesh	43.38	149.49	195.41	298.58	0.00	109.92	146.56	943.33
2. Goa	0.00	282.44	8.80	26.52	0.00	2.59	4.49	324.84
3. Manipur	6.16	290.93	32.99	46.73	0.00	193.57	92.96	663.33
4. Mizoram	26.80	275.58	80.31	73.42	1.45	0.00	72.62	530.17
5. Nagaland	0.30	236.55	53.67	94.89	3.51	0.00	0.00	388.92
6. Pondicherry	0.00	179.51	1.77	5.88	0.00	10.59	0.00	197.75
7. Sikkim	12.05	55.61	107.78	96.29	0.00	0.00	0.00	271.73
8. Tripura	59.65	105.22	42.11	68.48	0.00	28.73	23.86	328.05
Average of EDs	9.54	211.47	23.67	38.64	0.21	20.52	15.36	319.41
All India Average	46.34	165.16	8.91	44.24	7.91	19.74	34.86	327.16

Annexure 4.5-A

Cost Structure of Generation Companies, 2000-2001 (RE)

(Paise/Kwh)

SEBs	Fuel Purchase	Power	O & M Admn.	Estt/exp.	Misc. ciation	Depre-	Interest	Total
1. APGENCO	82.72	0.34	7.21	7.29	0.00	17.68	41.36	156.60
2. HPGC	169.64	0.00	8.05	20.98	0.00	14.75	24.01	237.43
3. KPC	57.42	0.00	3.06	13.49	2.18	13.15	24.17	113.47
5. OHPC (Orissa)	0.00	0.00	3.59	10.15	0.03	13.14	10.38	37.27
4. OPGC (Orissa)	45.33	1.06	8.61	7.94	1.44	29.21	16.93	110.52
5. Rajasthan(Genco.)	148.48	0.00	3.95	5.23	23.74	9.40	37.57	228.37
6. UP TPGen. Corp.	82.96	0.00	13.58	13.61	0.00	21.82	8.84	140.81
7. UP(JVNL)	0.00	0.00	6.80	12.18	0.00	6.50	13.49	38.98
8. WBPDC	97.46	0.00	8.53	5.59	0.00	15.44	26.60	153.61
Average :	82.33	0.00	10.32	11.57	5.08	16.46	15.81	141.56

Annexure 4.6

Cost Structure of SEBs, 2001-02 (AP)

(Paise/Kwh of sale)

SEBs	Fuel Purchase	Power	O & M Admn.	Estt/ exp.	Misc. ciation	Depre-	Interest	Total
1. Andhra Pradesh	0.00	260.83	5.80	25.51	5.57	17.59	45.40	360.70
2. Assam	68.98	190.41	15.94	117.71	11.49	44.21	140.36	589.10
3. Bihar	35.90	206.91	15.70	82.91	0.00	23.08	12.58	377.08
4. Delhi(DVB)	37.04	326.82	10.65	41.08	0.00	11.53	42.52	469.64
5. Gujarat	106.41	161.59	6.23	35.76	0.00	21.72	33.68	365.39
6. Haryana/HVPN	3.19	297.68	8.55	51.71	3.04	15.49	32.24	411.90
7. Himachal Pradesh	0.00	86.14	27.80	76.37	0.00	8.77	36.30	235.38
8. Jammu & Kashmir	1.28	303.53	6.53	37.68	0.00	14.70	48.60	412.32
9. Karnataka SEB	0.00	277.25	8.13	47.14	1.13	17.64	23.29	374.58
10. Kerala	25.84	167.29	5.54	57.52	5.49	14.17	71.50	347.35
11. Madhya Pradesh	66.56	114.91	11.31	45.49	11.01	25.82	49.81	324.92
12. Maharashtra	76.67	144.13	15.03	43.00	13.66	33.73	31.31	357.54
13. Meghalaya	0.00	33.18	28.62	112.80	0.00	27.31	63.07	264.98
14. Orissa (GRIDCO)	NA	NA	NA	NA	NA	NA	NA	184.90
15. Punjab	78.89	54.58	10.36	54.94	1.52	30.16	54.73	285.18
16. Rajasthan(Transco.)	3.83	267.93	4.96	35.95	7.05	18.66	29.78	368.16
17. Tamil Nadu	87.98	126.20	4.27	48.29	1.60	18.01	23.48	309.82
18. UP(Power corp.)	0.00	245.98	8.33	50.30	21.01	14.76	43.28	383.64
19. West Bengal SEB	37.38	208.25	11.24	44.50	9.19	15.57	50.66	376.78
Average :	46.24	184.78	8.93	44.50	6.43	21.11	38.33	350.33
II.EDs								
1. Arunachal Pradesh	32.25	111.61	172.34	262.37	0.00	94.38	127.21	800.16
2. Goa	0.00	279.93	8.01	24.16	0.00	2.41	4.54	319.06
3. Manipur	64.00	233.48	32.00	44.00	0.00	140.00	67.64	581.12
4. Mizoram	28.90	300.87	71.91	65.41	1.16	0.00	62.10	530.35
5. Nagaland	0.33	189.87	49.06	86.45	3.19	0.00	0.00	328.91
6. Pondicherry	0.00	184.73	1.90	5.79	0.00	10.35	0.00	202.78
7. Sikkim	25.17	50.34	108.98	96.48	0.00	0.00	0.00	280.96
8. Tripura	57.09	98.07	36.70	64.12	0.00	25.08	25.49	306.56
Average of EDs	13.27	206.44	22.50	36.49	0.18	18.53	14.61	312.03
All India Average	45.84	185.05	9.10	44.40	6.35	21.08	38.03	349.85

Annexure 4.6-A

Cost Structure of Generation Companies - 2001-02 (AP)

(Paise/Kwh of sale)

SEBs	Fuel	Power Purchase	O & M	Estt/ Admn.	Misc. exp.	Depre- ciation	Interest	Total
1. APGENCO	84.34	0.33	7.62	8.15	0.00	17.78	41.81	160.04
2. HPGC	176.37	0.00	8.47	20.50	0.00	13.25	25.59	244.17
3. KPC	64.49	0.00	3.57	14.54	2.23	13.44	25.11	123.38
5. OHPC (Orissa)	0.00	0.00	4.27	9.50	0.00	13.52	28.82	56.12
4. OPGC (Orissa)	47.60	1.12	9.04	8.34	1.51	30.67	0.00	98.27
5. Rajasthan(Genco.)	151.75	0.00	4.15	5.50	15.38	15.35	44.33	236.47
6. UP TPGen. Corp.	87.63	0.00	14.63	14.67	0.00	21.38	10.68	148.99
7. UP(JVNL)	0.00	0.00	7.73	13.51	0.00	6.70	18.57	46.51
8. WBPDC	99.95	0.00	7.79	5.84	0.00	31.82	58.21	203.62
Average :	91.83	0.00	10.57	11.89	4.35	17.34	21.45	157.43

Annexure 4.7

Fuel Consumption by Coal based Thermal Units

Coal (Kg/Kwh of generation)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(RE)	(AP)
1 Andhra Pradesh (APSEB)	0.84	0.86	0.83	0.83	0.82	0.76	NA	NA	NA	NA
APGENCO							0.74	0.74	0.76	0.75
2 Assam	0.00	0.00	0.00	0.67	0.67	0.73	0.80	0.86	0.85	0.85
3 Bihar	0.90	0.91	0.95	0.97	1.03	0.93	0.97	0.97	0.98	0.98
4 Delhi(DVB)	0.77	NA	NA	0.83	0.84	0.88	0.85	0.79	0.79	0.79
5 Gujarat	0.63	0.66	0.67	0.63	0.67	0.70	0.71	0.71	0.64	0.64
6 Haryana (HSEB)	0.73	0.80	0.79	0.75	0.86	0.77	NA	NA	NA	NA
HPGC					NA	NA	0.77	0.80	0.82	0.81
7 Himachal Pradesh	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	0.00\
8 Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00
9 Karnataka SEB	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	0.00
KPC	0.74	0.74	0.73	0.78	0.81	0.75	0.73	0.73	0.76	0.76
10 Kerala	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	0.00
11 Madhya Pradesh	0.83	0.80	0.82	0.81	0.79	0.79	0.79	0.78	0.79	0.79
12 Maharashtra	0.80	0.80	0.80	0.80	0.79	0.79	0.76	0.73	0.72	0.73
13 Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14 Orissa (GRIDCO)	1.01	0.95	0.88	NA	NA	NA	NA	NA	NA	NA
OPGC	-	-	-	0.93	0.95	0.91	0.89	0.86	0.86	0.86
15 Punjab	0.68	0.74	0.74	0.71	0.70	0.69	0.69	0.69	0.70	0.69
16 Rajasthan(RSEB)	0.69	0.70	0.74	0.66	0.65	0.65	0.61	0.58	0.61	NA
Rajasthan(Genco.)									0.64	0.64
17 Tamil Nadu	0.75	0.75	0.75	0.70	0.70	0.74	0.73	0.73	0.74	0.76
18 UP(Power corp.)	0.82	0.80	0.80	0.78	0.78	0.78	0.78	NA	NA	NA
UP(TPG Corp.)								0.80	0.79	0.78
19 West Bengal SEB	0.59	NA	NA	0.59	0.59	0.63	0.64	0.63	0.63	0.63
WBPDC	0.63	0.63	0.65	0.73	0.74	0.77	0.76	0.82	0.68	0.66
Average :	0.75	0.77	0.77	0.76	0.76	0.76	0.75	0.74	0.73	0.74

Annexure 4.8

Secondary Oil Consumption in Coal based Thermal Units

Oil(ml/Kwh of generation)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1 Andhra Pradesh	3.10	2.89	3.08	2.96	2.43	2.13	1.96	1.26	1.68	1.54
2 Assam	76.64	0.00	0.00	22.95	12.32	64.59	55.56	37.90	54.09	40.00
3 Bihar	23.70	20.13	21.79	23.94	36.34	16.79	24.19	27.34	21.12	21.20
4 Delhi(DVB)	25.10	NA	NA	17.81	23.87	19.16	21.14	10.92	12.36	12.36
5 Gujarat	8.89	6.91	9.27	12.21	10.70	6.01	3.41	3.19	3.34	4.05
6 Haryana	12.65	15.22	14.15	16.13	18.63	11.92	NA	NA	NA	NA
HPGC				NA	NA	NA	12.70	6.39	6.56	6.61
7 Himachal Pradesh	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
8 Jammu & Kashmir	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
9 Karnataka SEB	0.00	-	-	NA	NA	NA	NA	NA	NA	NA
KPC	0.90	0.90	0.75	1.39	0.76	0.77	1.78	2.51	1.50	1.00
10 Kerala	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA
11 Madhya Pradesh	14.26	9.67	12.49	7.72	5.02	3.62	2.68	2.93	2.57	2.56
12 Maharashtra	5.64	4.64	4.80	4.07	4.07	2.90	2.86	2.00	2.49	2.44
13 Meghalaya	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA
14 Orissa (GRIDCO)	10.20	7.76	13.76	17.03	NA	NA	NA	NA	NA	NA
OPGC				9.24	5.22	4.57	1.88	1.21	1.00	1.00
15 Punjab	3.27	3.39	5.83	4.27	3.51	1.73	3.49	2.57	1.62	1.62
16 Rajasthan(Transco.)	3.83	3.40	4.23	3.83	2.16	1.68	2.26	2.18	1.92	NA
Rajasthan(Genco.)									3.93	3.80
17 Tamil Nadu	2.31	2.35	1.21	24.25	5.14	5.11	8.62	7.57	5.87	5.85
18 UP(Power corp.)	7.47	7.19	7.54	4.98	3.86	4.50	4.50	NA	NA	NA
UP(TPG Corp.)								5.30	5.04	4.94
19 West Bengal SEB	8.20	NA	NA	4.64	3.80	3.36	3.30	4.08	4.09	4.05
WBPDCL	9.00	7.31	7.12	6.16	4.73	3.03	3.51	3.95	4.06	4.00
Average :	7.82	5.61	6.64	10.80	5.51	4.17	4.25	3.71	3.48	3.59

Annexure 4.9

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	2001-02
	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Provi.	(RE)	(AP)
1. Andhra Pradesh	51.56	61.38	64.46	69.17	77.36	81.47	87.57	88.05	98.27	106.99
2. Assam	0.00	0.00	0.00	98.93	107.74	126.35	151.77	200.95	185.55	194.83
3. Bihar	40.10	45.76	48.51	56.76	62.17	71.79	80.95	78.47	85.08	94.24
4. Delhi(DVB)	79.00	NA	NA	108.88	118.75	133.94	200.68	209.03	198.99	210.68
5. Gujarat	66.61	83.61	99.75	89.22	107.21	122.05	129.06	127.37	135.99	145.78
6. Haryana	0.00	102.52	108.01	110.41	138.33	146.20	NA	NA	NA	NA
HPGC	NA	NA	NA	NA	NA	NA	155.56	144.33	148.51	153.33
7. Himachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8. Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9. Karnataka SEB	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
KPC	61.60	61.60	68.55	84.46	94.21	98.51	98.54	104.31	122.44	133.52
10. Kerala	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11. Madhya Pradesh	29.30	32.73	40.63	44.65	56.10	65.01	65.85	65.01	73.95	78.87
12. Maharashtra	49.06	56.77	59.03	60.85	72.18	79.61	83.90	79.70	79.06	81.06
13. Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14. Orissa (GRIDCO)	28.00	28.39	31.85	28.41	NA	NA	NA	NA	NA	NA
OPGC				33.35	34.74	36.71	41.58	38.85	39.34	39.34
15. Punjab	68.70	86.30	91.75	100.85	108.00	123.03	123.33	129.11	131.92	131.55
16. Rajasthan(Transco.)	65.40	71.14		NA	97.47	106.78	104.80	106.67	119.39	NA
Rajasthan(Genco.)									128.54	137.37
17. Tamil Nadu	86.80	93.33	96.51	97.60	111.48	122.31	116.53	118.70	124.92	135.92
18. UP(Power Corp.)	42.90	49.81	48.26	50.79	52.12	62.67	62.67	NA	NA	NA
UP(TPG Corp.)								66.50	68.25	72.14
19. West Bengal SEB	53.00	-	-	66.37	81.28	94.70	100.76	92.62	97.03	97.12
WBPDCL	45.30	51.20	58.00	61.12	71.83	87.88	86.49	88.69	81.59	83.16
Average	53.35	64.20	66.63	70.09	82.52	92.11	94.11	94.75	100.31	105.51

Annexure 4.10

Cost of Oil per unit of Generation

(Paise/Kwh)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	1.50	1.77	1.86	1.76	1.57	1.74	1.67	1.06	1.59	2.01
2. Assam	0.00	0.00	0.00	13.94	9.75	67.06	36.68	42.89	82.64	81.50
3. Bihar	12.00	13.16	12.77	13.53	24.19	18.92	18.03	20.43	20.19	23.35
4. Delhi(DVB)	10.30	NA	NA	9.84	17.70	14.86	17.51	10.47	15.29	16.24
5. Gujarat	3.90	3.91	5.34	6.99	8.29	3.85	2.85	3.12	4.69	5.24
6. Haryana (HVPN)	0.00	NA	NA	10.47	NA	NA	NA	NA	NA	NA
HPGC								4.49	7.27	8.21
7. Himachal Pradesh	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA
8. Jammu & Kashmir	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA
9. Karnataka SEB	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA
KPC	0.40	0.40	0.37	0.99	0.47	0.55	1.26	2.39	1.50	1.05
10. Kerala	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA
11. Madhya Pradesh	7.20	5.66	7.68	4.79	3.51	2.89	2.01	2.57	2.46	2.70
12. Maharashtra	3.27	3.58	3.62	2.56	2.70	2.91	2.91	2.52	3.37	3.32
13. Meghalaya	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA	NA
14. Orissa (GRIDCO)	6.00	5.61	10.12	19.93	NA	NA	NA	NA	NA	NA
OPGC				3.72	3.99	3.92	1.75	1.30	1.46	1.46
15. Punjab	1.60	2.74	3.14	2.33	2.09	1.16	1.34	2.03	1.84	1.84
16. Rajasthan(Transco.)	1.60	1.65		NA	1.52	1.19	2.95	3.16	3.38	NA
Rajasthan(Genco.)				NA	NA	NA	NA	NA	5.67	5.08
17. Tamil Nadu	1.20	1.32	0.75	10.40	3.83	3.26	5.86	6.66	7.00	8.34
18. UP(Power corp.)	3.90	4.25	5.22	3.18	2.91	3.84	3.84	NA	NA	NA
UP(TPG Corp.)				NA	NA	NA	NA	5.12	6.41	6.72
19. West Bengal SEB	4.50	NA	NA	3.68	3.34	3.43	3.55	4.85	6.51	7.02
WBPDCL	5.30	4.60	5.00	4.38	3.91	2.72	3.22	4.33	6.16	6.80
Average of SEBs :	3.70	3.54	3.97	6.80	4.18	3.73	3.43	3.54	4.31	4.78

Annexure 4.11

Total Cost of Purchase of Power

(Rs.crore)

	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
I. SEBs										
1. Andhra Pradesh	592	743	940	983	1049	1767	2594	6205	7129	7768
2. Assam	61	86	119	150	220	240	249	219	385	392
3. Bihar	399	499	596	804	1100	1360	1335	1705	1716	1883
4. Delhi(DVB)	810	-	1266	1472	1692	2177	2672	2925	2985	3353
5. Gujarat	428	565	596	1059	1492	1926	3039	4479	5138	5283
6. Haryana	326	503	486	700	810	976	1555	2368	3226	3485
7. Himachal Pradesh	36	46	64	101	137	173	169	290	292	314
8. Jammu & Kashmir	130	185	223	225	350	518	661	704	882	1025
9. Karnataka	713	957	1075	1491	1706	1859	2280	2731	3850	5421
10. Kerala	97	183	218	271	363	543	563	819	1475	1979
11. Madhya Pradesh	719	904	1003	1376	1827	1870	2236	2624	2779	3049
12. Maharashtra	873	1035	1059	2066	2279	2600	2831	4468	4210	6783
13. Meghalaya	0	1	3	4	4	5	5	5	12	20
14. Orissa	134	248	306	653	983	1200	1229	1202	1370	1477
15. Punjab	252	349	463	532	628	938	905	932	1186	1260
16. Rajasthan(Transco.)	538	734	891	1086	1134	1545	1873	2108	3397	4901
17. Tamil Nadu	525	661	823	870	979	1277	1799	2491	3190	4587
18. UP(Power corp.)	1018	1306	1423	1388	1677	1951	1951	5901	6085	6890
19. West Bengal	446	572	712	902	1033	1399	1716	1747	1902	2187
Sub-total :(I)	8097	9576	12268	16131	19464	24323	29662	43923	51208	62057
II.EDs										
1. Arunachal Pradesh	2	3	4	4	5	7	6	15	15	14
2. Goa	61	80	88	101	117	150	186	256	330	356
3. Manipur	16	10	19	21	32	18	60	70	48	58
4. Mizoram	5	7	9	15	17	18	21	37	38	52
5. Nagaland	11	11	12	19	24	25	27	29	39	34
6. Pondicherry	66	75	92	100	108	126	162	212	253	288
7. Sikkim	2	2	1	1	2	3	3	3	6	6
8. Tripura	3	6	11	14	13	14	30	43	44	48
Sub-total :(II)	167	193	235	276	318	361	496	664	774	856
Grand total :	8263	9769	12503	16407	19782	24684	30158	44587	51982	62913

Annexure 4.12

Rate of Purchase of Power

(Paise/Kwh)

	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
I. SEBs										
1. Andhra Pradesh	82.2	90.1	103.0	112.5	123.3	158.0	150.7	150.6	165.8	173.4
2. Assam	58.7	69.6	109.3	130.7	153.4	137.4	125.6	103.6	180.7	189.3
3. Bihar	89.0	99.9	98.3	117.2	150.3	170.4	177.7	199.7	198.6	201.0
4. Delhi(DVB)	100.2	NA	107.6	134.0	138.0	185.9	188.5	195.8	199.8	204.4
5. Gujarat	78.7	81.9	84.5	108.1	132.6	152.2	200.4	235.8	289.1	296.6
6. Haryana	78.3	100.8	103.8	114.5	128.3	146.9	175.7	195.9	231.6	238.0
7. Himachal Pradesh	35.7	41.7	44.4	60.1	74.8	84.2	81.0	119.6	119.7	121.0
8. Jammu & Kashmir	65.4	81.3	97.7	90.5	114.8	130.7	139.9	162.0	188.6	190.0
9. Karnataka	47.2	58.7	58.5	80.8	96.4	90.8	100.3	104.6	141.6	177.4
10. Kerala	78.8	90.6	96.8	102.6	110.2	128.1	156.6	191.7	276.3	323.9
11. Madhya Pradesh	75.2	87.5	93.1	113.2	142.5	145.1	156.3	181.0	182.6	193.5
12. Maharashtra	96.6	107.3	110.5	155.8	177.2	175.4	182.7	245.2	253.2	319.9
13. Meghalaya	0.0	14.8	32.2	77.3	46.8	59.5	57.8	49.5	89.3	122.4
14. Orissa	64.2	65.8	70.2	104.2	101.8	116.2	116.3	108.0	110.5	120.3
15. Punjab	72.3	86.7	113.6	106.9	123.4	141.0	143.7	155.2	169.8	176.3
16. Rajasthan(Transco.)	80.3	97.7	107.7	108.8	103.9	141.3	154.2	165.6	111.8	130.4
18. UP(Power corp.)	79.4	102.3	106.7	99.0	119.7	134.2	134.2	144.1	144.7	150.7
19. West Bengal	80.1	97.4	104.7	106.7	118.5	155.0	169.4	172.9	175.0	192.3
Average :(I)	76.2	87.0	94.0	109.9	119.1	140.7	152.4	166.7	176.0	193.7
II. EDs										
1. Arunachal Pradesh	90.0	89.8	89.6	74.9	75.0	89.9	72.6	169.9	170.0	170.0
2. Goa	74.5	81.0	87.3	88.0	92.1	108.9	123.6	174.9	206.2	204.6
3. Manipur	64.9	35.8	78.5	81.2	106.5	50.7	159.3	178.3	158.7	171.4
4. Mizoram	75.0	75.5	84.0	121.9	113.4	130.4	123.7	184.9	173.4	202.9
5. Nagaland	83.4	77.1	83.3	123.0	135.1	133.0	151.2	151.0	177.9	181.5
6. Pondicherry	79.8	90.2	94.6	102.3	109.8	116.0	132.7	147.9	155.8	161.2
7. Sikkim	79.9	65.5	36.9	24.0	38.2	56.1	41.0	36.2	64.2	85.5
8. Tripura	46.4	60.9	99.6	107.1	100.4	92.9	139.0	166.4	160.9	157.7
Average :(II)	75.2	77.8	88.9	95.3	101.7	105.5	129.5	161.8	174.9	179.6
Overall :	76.2	86.8	93.9	109.6	118.7	140.0	151.9	166.6	176.0	193.5

Annexure 4.13

Share of O&M in Total Cost

(%)

SEBs/EDs	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 (Provis)	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	5.26	4.06	3.60	4.17	3.56	3.00	1.64	1.54	1.61
2. Assam	4.25	3.60	3.40	3.50	2.90	3.34	3.63	2.87	2.71
3. Bihar	5.89	7.00	5.80	5.01	4.57	6.00	4.81	4.48	4.16
4. Delhi(DVB)	NA	3.98	3.77	3.43	4.59	2.08	2.08	2.19	2.27
5. Gujarat	3.61	3.73	3.32	2.75	2.91	2.15	1.72	1.66	1.70
6. Haryana	4.22	4.38	5.65	4.61	4.06	3.21	2.77	2.12	2.08
7. Himachal Pradesh	10.59	12.19	11.73	10.87	10.55	10.63	9.16	11.55	11.81
8. Jammu & Kashmir	3.20	3.20	2.11	2.11	1.65	1.63	1.63	1.54	1.58
9. Karnataka SEB	4.10	4.38	3.48	3.73	3.24	3.37	3.43	2.66	2.17
10. Kerala	5.74	36.55	33.22	3.47	2.94	2.94	2.47	1.93	1.60
11. Madhya Pradesh	4.26	4.22	4.10	4.19	4.50	3.75	3.27	3.35	3.48
12. Maharashtra	5.84	6.13	6.03	5.45	6.24	5.43	4.45	4.71	4.20
13. Meghalaya	11.16	13.35	11.35	12.74	12.30	11.28	10.95	11.14	10.80
14. Orissa (GRIDCO)	22.95	5.31	3.71	2.76	3.15	2.46	1.39	1.38	1.38
15. Punjab	2.87	2.66	2.78	3.33	3.41	3.11	3.19	3.38	3.63
16. Rajasthan(Transco.)	4.07	3.62	3.71	4.55	3.73	2.76	2.71	1.61	1.35
17. Tamil Nadu	2.79	2.85	2.86	2.61	2.33	2.40	1.56	1.59	1.38
18. UP(Power corp.)	4.82	4.60	5.19	4.82	4.90	4.90	2.07	2.36	2.17
19. West Bengal	3.99	3.67	3.48	3.77	2.72	2.67	2.77	2.97	2.98
Average :	4.93	4.95	4.82	4.10	4.05	3.52	2.78	2.67	2.55
EDs									
1. Arunachal Pradesh	NA	NA	NA	23.78	20.62	15.94	16.98	20.71	21.54
2. Goa	NA	NA	NA	1.49	2.17	4.17	2.56	2.71	2.51
3. Manipur	NA	NA	NA	8.40	16.27	11.07	8.93	4.97	5.51
4. Mizoram	NA	NA	NA	19.86	19.68	21.09	17.17	15.15	13.56
5. Nagaland	NA	NA	NA	21.12	21.25	19.37	16.13	13.80	14.92
6. Pondicherry	NA	NA	NA	1.03	1.04	0.98	0.90	0.89	0.94
7. Sikkim	NA	NA	NA	49.74	46.94	42.31	43.98	39.67	38.79
8. Tripura	NA	NA	NA	18.83	13.26	10.91	12.20	12.84	11.97
Average of EDs	NA	NA	NA	10.54	9.93	8.97	7.81	7.41	7.21
All India Average	4.93	4.95	4.82	4.16	4.10	3.57	2.83	2.72	2.60
Generation Companies									
1. APGENCO	NA	NA	NA	NA	NA	NA	4.66	4.61	4.76
2. HPGC				NA	NA	NA	3.05	3.39	3.47
3. KPC	3.47	2.04	2.68	2.64	2.98	9.88	13.26	11.89	11.79
4. OHPC				8.38	7.63	11.95	13.09	9.45	5.49
5. OPGC				5.12	3.52	5.21	4.74	7.79	9.20
6. Rajasthan(Genco.)				NA	NA	NA	NA	1.73	1.76
7. UP(TPG Corp.)				NA	NA	NA	9.38	9.64	9.82
8. UP(JVNL)								17.44	16.61
9. WBPDC	7.50	6.31	7.45	4.11	4.68	4.67	7.22	5.55	3.83
Average of GENCOs						6.79	7.00	6.81	6.42

Annexure 4.14

Share of Estt./Admn. in Total Cost

(%)

SEBs/EDs	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provis)	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	10.60	12.68	10.93	12.15	11.13	10.70	8.51	7.66	7.07
2. Assam	19.81	16.83	17.33	19.33	21.41	23.77	26.42	20.91	19.98
3. Bihar	20.95	19.76	18.99	16.12	15.68	16.46	14.95	22.78	21.99
4. Delhi(DVB)	-	9.84	11.73	10.32	6.93	10.06	8.92	9.00	8.75
5. Gujarat	11.78	12.17	11.22	9.23	8.50	9.87	9.96	9.60	9.79
6. Haryana	15.78	16.39	15.86	15.76	16.79	16.93	15.53	12.42	12.55
7. Himachal Pradesh	28.61	32.78	32.93	27.67	27.09	35.58	32.11	32.83	32.44
8. Jammu & Kashmir	10.40	12.72	10.40	10.40	8.08	9.76	10.77	9.63	9.14
9. Karnataka SEB	20.80	18.61	16.29	17.37	16.37	17.83	17.78	15.26	12.58
10.Kerala	34.35	0.00	0.00	30.34	28.57	26.61	22.09	20.15	16.56
11.Madhya Pradesh	15.61	15.46	14.02	14.23	16.72	16.30	14.60	14.18	14.00
12.Maharashtra	13.03	13.68	12.75	11.85	11.39	12.70	12.16	13.32	12.03
13.Meghalaya	40.50	41.59	39.92	45.92	45.30	41.77	42.06	44.05	42.57
14.Orissa (GRIDCO)	19.61	18.36	13.94	15.71	15.36	15.93	6.10	6.32	6.11
15.Punjab	16.14	15.32	17.36	17.08	16.53	22.11	20.08	19.42	19.26
16.Rajasthan(Transco.)	10.93	9.69	8.62	8.91	9.50	9.77	8.88	10.15	9.77
17.Tamil Nadu	17.58	15.58	14.25	17.25	18.31	19.14	18.44	17.64	15.59
18.UP(Power corp.)	10.73	10.22	12.69	13.26	13.35	13.35	10.33	14.35	13.11
19.West Bengal SEB	13.12	12.26	12.21	11.57	10.25	11.39	11.83	12.15	11.81
Average :	14.75	13.25	12.95	13.76	13.61	14.58	13.26	13.54	12.70
II. EDs									
1. Arunachal Pradesh	NA	NA	NA	9.50	13.52	37.57	29.61	31.65	32.79
2. Goa	NA	NA	NA	12.47	10.60	10.64	9.22	8.17	7.57
3. Manipur	NA	NA	NA	10.43	12.41	8.48	12.70	7.04	7.57
4. Mizoram	NA	NA	NA	17.17	16.25	16.73	14.92	13.85	12.33
5. Nagaland	NA	NA	NA	24.35	23.67	25.85	29.24	24.40	26.28
6. Pondicherry	NA	NA	NA	2.46	3.21	2.84	2.57	2.97	2.86
7. Sikkim	NA	NA	NA	34.19	33.62	38.93	38.52	35.44	34.34
8. Tripura	NA	NA	NA	18.80	22.91	27.16	24.79	20.87	20.92
Average of EDs	NA	NA	NA	12.53	12.85	15.23	13.63	12.10	11.69
All India Average	14.75	13.25	12.95	13.74	13.60	14.59	13.27	13.52	12.69
Generation Companies									
1. APGENCO							4.70	4.65	5.09
2. HPGC				NA	NA	7.38	8.35	8.84	8.40
3. KPC	9.40	6.94	9.07	10.54	10.08	9.88	13.26	11.89	11.79
4. OHPC				25.29	39.90	28.63	29.92	27.22	16.93
5. OPGC				3.76	4.45	3.53	5.58	7.19	8.49
6. Rajasthan(Genco.)				NA	NA	NA	NA	2.29	2.33
7. UP(TPG Corp.)				NA	NA	NA	NA	9.67	9.84
8. UP(JVNL)								31.26	29.05
9. WBPCDC		0.00	0.00	2.67	2.70	4.07	3.66	3.64	2.87
Average of GENCOs						7.74	7.33	7.58	7.27

Annexure 4.15

Share of Depreciation in Total Cost

(%)

	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 (Provis)	2000- 01 (RE)	2001- 02 (AP)
I. SEBs								
1. APSEB/APTRANSCO	9.61	9.47	9.32	7.57	6.32	3.72	3.91	4.88
2. Assam	11.22	5.93	9.22	9.07	9.48	10.16	8.10	7.51
3. Bihar	8.02	9.41	8.40	7.65	7.28	6.60	6.46	6.12
4. Delhi(DVB)	NA	3.85	4.07	3.84	1.37	1.78	2.28	2.46
5. Gujarat	9.23	8.99	8.02	7.77	6.98	6.05	5.69	5.94
6. Haryana (HVPN)	9.74	8.11	6.71	5.68	5.40	4.62	3.78	3.76
7. Himachal Pradesh	4.23	4.75	3.87	3.85	3.66	2.96	3.22	3.73
8. Jammu & Kashmir	6.03	6.68	5.99	5.10	4.67	4.35	3.81	3.57
9. Karnataka SEB	7.99	7.31	7.12	6.86	6.32	6.29	5.33	4.71
10. Kerala	6.17	14.44	5.84	5.05	7.32	6.11	4.64	4.08
11. Madhya Pradesh	11.84	10.14	8.21	7.54	6.25	7.55	7.82	7.95
12. Maharashtra	11.43	11.09	10.57	10.18	10.07	9.84	10.59	9.44
13. Meghalaya	9.49	9.33	8.54	13.44	12.14	11.28	11.03	10.31
i) OSEB/GRIDCO	6.34	6.79	8.45	7.68	7.75	4.89	4.58	4.91
15. Punjab	11.33	11.50	9.05	7.50	6.52	7.41	7.36	10.58
16. Rajasthan(Transco.)	10.59	6.85	6.97	6.75	6.16	6.18	5.46	5.07
17. Tamil Nadu	4.95	5.25	6.64	6.75	6.90	7.04	6.60	5.81
18. UP(Power corp.)	8.55	10.05	1.80	1.77	1.89	1.64	1.58	1.52
19. West Bengal SEB	5.94	5.66	5.47	4.91	4.35	4.39	4.18	4.13
Average :	9.22	8.96	8.01	7.37	6.34	6.01	5.83	5.94
II. EDs								
1. Arunachal Pradesh	NA	NA	10.84	10.26	12.65	11.90	11.65	11.79
2. Goa	NA	NA	1.75	1.49	1.24	0.96	0.76	0.71
3. Manipur	NA	NA	17.78	27.33	28.68	38.14	28.02	24.09
4. Mizoram	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
5. Nagaland	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
6. Pondicherry	NA	NA	8.82	8.40	7.14	5.95	5.36	5.10
7. Sikkim	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8. Tripura	NA	NA	15.01	15.07	16.09	11.57	8.76	8.18
Average of EDs	NA	NA	7.55	7.14	6.81	7.15	6.21	5.74
All India Average	9.22	8.96	7.42	7.37	6.41	6.07	5.88	5.99
Generation Companies								
1. APGENCO						12.63	11.29	11.11
2. HPGC						7.61	6.21	5.43
3. KPC	13.47	13.84	13.53	12.53	12.18	11.93	11.59	10.89
4. OHPC			58.77	44.29	43.09	39.97	34.62	17.39
5. OPGC			36.73	32.46	26.40	26.08	26.43	31.21
6. Rajasthan(Genco.)							4.12	6.49
7. UP(TPG Corp.)						16.58	15.50	14.35
8. UP(JVNL)						NA	16.69	14.40
9. WBPDC	14.00	14.90	13.76	12.53	11.60	11.72	10.05	15.63
Average of GENCOs					14.96	13.08	11.79	11.73

Annexure 4.16

Share of Interest in Total Cost

(%)

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
	Actual	Actual	Actual	Actual	Actual	(Provis)	(RE)	(AP)
I. SEBs								
1. APSEB/APTRANSCO	12.79	21.78	19.40	17.34	19.14	10.34	12.21	12.59
2. Assam	28.85	33.67	34.25	29.04	23.25	21.25	20.31	23.83
3. Bihar	9.21	8.56	7.71	6.66	5.28	4.75	3.95	3.34
4. Delhi(DVB)	NA	3.62	3.89	3.77	7.12	7.81	9.34	9.05
5. Gujarat	10.72	9.06	11.29	10.77	9.12	8.35	8.44	9.22
6. Haryana	12.43	8.77	12.59	11.04	8.88	6.40	7.16	7.83
7. Himachal Pradesh	30.96	15.93	22.08	22.42	21.26	18.98	14.96	15.42
8. Jammu & Kashmir	19.37	19.09	15.79	13.90	13.01	12.95	12.17	11.79
9. Karnataka SEB	9.66	9.94	8.56	10.57	10.28	8.17	7.72	6.22
10. Kerala	20.25	21.87	20.96	19.22	17.94	18.44	18.63	20.58
11. Madhya Pradesh	18.18	19.42	16.97	14.84	19.81	17.68	16.41	15.33
12. Maharashtra	11.27	10.30	9.72	8.77	8.13	7.38	9.43	8.76
13. Meghalaya	33.59	33.33	27.13	24.25	30.18	26.85	25.57	23.80
14. OSEB/GRIDCO	13.21	11.21	6.50	6.82	8.91	17.81	16.11	17.34
15. Punjab	21.69	21.77	17.88	18.22	19.63	19.57	19.82	19.19
16. Rajasthan(Transco.)	16.05	16.36	12.43	11.70	15.68	14.75	11.43	8.09
17. Tamil Nadu	9.70	9.03	8.90	8.30	7.60	7.49	7.88	7.58
18. UP(Power corp.)	27.33	26.73	24.76	24.30	24.30	3.21	5.16	11.28
19. West Bengal SEB	12.98	11.27	11.27	10.01	11.24	12.05	12.18	13.45
Average :	15.37	15.14	14.05	13.32	13.57	10.37	10.79	11.17
II. EDs								
1. Arunachal Pradesh	NA	NA	21.53	19.61	18.91	16.58	15.54	15.90
2. Goa	NA	NA	0.00	0.14	0.87	0.63	1.31	1.33
3. Manipur	NA	NA	15.92	1.04	30.25	19.42	13.46	11.64
4. Mizoram	NA	NA	15.79	18.86	10.23	18.58	13.70	11.71
5. Nagaland	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
6. Pondicherry	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
7. Sikkim	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
8. Tripura	NA	NA	12.50	9.42	9.80	8.06	7.27	8.31
Average of EDs	NA		6.54	4.49	5.68	5.52	4.65	4.53
All India Average	15.37	15.14	13.99	13.25	13.49	10.32	10.72	11.10
Generation Companies								
1. APGENCO	NA	NA	NA	NA	NA	25.64	26.41	26.13
2. HPGC	NA	NA	NA	NA	NA	11.34	10.11	10.48
3. KPC	20.16	29.14	21.59	22.54	24.06	23.00	21.30	20.35
4. OHPC	NA	NA	7.53	6.98	12.48	13.83	27.35	37.05
5. OPGC	NA	NA	36.73	32.46	27.30	19.46	15.31	0.00
6. Rajasthan(Genco.)	NA	NA	NA	NA	NA	NA	16.45	18.75
7. UP(TPG Corp.)	NA	NA	NA	NA	NA	5.98	6.27	7.17
8. UP(JVNL)	NA	NA	NA	NA	NA		34.61	39.93
9. WBPDC	15.80	17.05	17.94	17.06	12.83	12.50	17.31	28.59
Average of GENCOs					20.03	20.59	18.65	20.19

Annexure 4.17

Number of Consumers of Electricity

(Million)

	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provis)	2000-01 (RE)	2001-02 (AP)
I. SEBs								
1. Andhra Pradesh/ APTRANSCO	8.41	8.91	9.48	10.04	10.58	11.00	13.55	13.55
2. Assam	0.66	0.68	0.71	0.76	0.80	0.85	0.90	0.96
3. Bihar	1.72	1.78	1.96	1.98	2.20	2.45	2.74	2.74
4. Delhi(DVB)	2.15	2.19	2.20	2.28	2.41	2.43	3.20	3.35
5. Gujarat	5.84	6.01	6.13	6.38	6.38	6.62	7.10	7.10
6. Haryana	3.07	3.17	3.59	3.39	3.42	3.32	3.49	3.63
7. Himachal Pradesh	1.13	1.18	1.23	1.29	1.35	1.41	1.48	1.55
8. Jammu & Kashmir	0.65	0.67	0.69	0.71	0.79	0.82	0.86	0.86
9. Karnataka	6.78	7.12	7.44	7.81	8.18	8.53	10.82	10.82
10. Kerala	4.42	4.69	4.92	5.21	5.64	6.03	6.45	6.63
11. Madhya Pradesh	6.59	7.06	7.42	7.63	7.96	8.14	8.14	8.14
12. Maharashtra	10.27	10.87	11.42	11.96	12.52	12.98	12.98	12.98
13. Meghalaya	0.10	0.10	0.11	0.11	0.12	0.15	0.16	0.17
14. Orissa (GRIDCO)	1.23	1.27	1.28	1.29	1.36	1.00	1.00	1.00
15. Punjab	4.24	4.51	4.67	4.78	4.92	5.03	5.21	5.37
16. Rajasthan(Transco.)	4.13	4.38	4.61	4.86	5.09	5.31	5.42	5.69
17. Tamil Nadu	9.75	10.28	11.04	11.72	12.40	13.33	13.85	14.42
18. UP(Power corp.)	5.89	6.14	6.45	6.71	6.71	8.43	8.80	9.38
19. West Bengal	2.11	2.34	2.40	2.63	3.06	3.26	3.57	3.81
Sub-total :(I)	79.14	83.35	87.75	91.53	95.91	101.08	109.70	112.15
II.EDs								
1. Arunachal Pradesh	0.07	0.08	0.09	0.10	0.11	0.11	0.12	0.12
2. Goa	0.34	0.36	0.37	0.38	0.39	0.38	0.39	0.40
3. Manipur	0.13	0.13	0.13	0.14	0.15	0.15	0.20	0.23
4. Mizoram	0.07	0.07	0.07	0.08	0.10	0.10	0.12	0.12
5. Nagaland	0.09	0.10	0.11	0.12	0.12	0.12	0.14	0.14
6. Pondicherry	0.16	0.17	0.18	0.19	0.21	0.22	0.22	0.22
7. Sikkim	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06
8. Tripura	0.13	0.13	0.13	0.15	0.16	0.19	0.21	0.23
Sub-total :(II)	1.03	1.08	1.13	1.21	1.27	1.32	1.44	1.51
Grand total	80.17	84.43	88.88	92.74	97.18	102.39	111.14	113.66

Annexure 4.18

Number of Employees

	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provis)	2000-01 (RE)	2001-02 (AP)
I.SEBs								
1. APSEB/APTRANSCO APGENCO	72432	72397	72810	74264	59674	60837 15150	61671 15150	61671 15150
2. Assam	21562	20882	20532	20219	19720	19222	18724	18125
3. Bihar	39719	38740	37719	36794	35120	33832	32300	30800
4. Delhi(DVB)	26300	27504	25885	24691	24569	24803	24700	24100
5. Gujarat	47247	48153	48519	48700	48978	47265	47782	47782
6. Haryana SEB/HVPN HPGC	48072	48072	48072	48072	43072	39556 5232	39653 4987	38547 4850
7. Himachal Pradesh	13000	13500	14200	15000	15000	17000	17500	18000
8. Jammu & Kashmir	16996	18296	18500	18500	20500	20700	20700	21000
9. Karnataka SEB/KPTCL KPC	44406 8186	44620 8104	43634 7954	42001 7867	40518 7885	39563 7795	38106 7638	38106 7600
10. Kerala	25372	26900	26900	26000	26400	25900	26000	28100
11. Madhya Pradesh	83997	87961	87950	88060	88243	88572	88572	88572
12. Maharashtra	111514	110662	110874	110905	112167	111724	111724	111724
13. Meghalaya	4374	4323	4325	4363	4280	4083	3986	3873
14. Orissa SEB/(GRIDCO) OHPC OPGC	30217	30685	30065 6139 NA	30165 6139 NA	29500 5931 NA	7500 5931 NA	7500 4451 NA	6500 4421 NA
15. Punjab	71574	72599	73563	80329	83148	84497	84171	84171
16. Rajasthan SEB/(Transco.) Rajasthan (Genco.)	56846	57130	56113	56465	56855	53350	39002 4199	37584 4199
17. Tamil Nadu	90086	89044	91038	96495	91984	99484	93721	93504
18. UP SEB/(Power corp.) UP(TPG Corp.) UP(JVNL)	97711	96153	94557	92732	92732	69517 14066	64500 14066 3715	62740 13434 3761
19. West Bengal WBPDC	39465 1980	39965 1982	38098 2100	38589 2182	38120 2268	37496 2285	36217 2270	36450 2500
Sub-total :(I)	951056	957672	959547	968532	946664	935360	913005	907264
II.EDs								
1. Arunachal Pradesh	4000	4000	4100	4300	7000	10300	9300	9300
2. Goa	3917	3938	4254	3951	4087	3880	4410	4410
3. Manipur	5694	5760	5755	5756	5740	5405	5405	5405
4. Mizoram	1128	1128	1128	1128	1128	1134	1136	1140
5. Nagaland	3425	3425	3683	3683	3814	3814	3814	3814
6. Pondicherry	1775	1775	1775	1775	1837	1837	1837	1837
7. Sikkim	1295	1317	1350	1230	1230	1230	1190	1281
8. Tripura	4986	5031	4870	5681	5883	5692	5450	5520
Sub-total :(II)	26220	26374	26915	27504	30719	33292	32542	32707
Grand total :	977276	984046	986462	996036	977383	968652	945547	939971

Annexure 4.19

Number of Employees per MKwh of electricity sold

	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provis)	2000-01 (RE)	2001-02 (AP)
I. SEBs								
1. APSEB/APTRANSCO	3.10	3.10	3.46	3.10	2.37	2.36	2.17	2.07
APGENCO						0.55	0.57	0.54
2. Assam	12.80	11.60	10.47	10.77	11.25	10.63	9.77	8.80
3. Bihar	6.20	5.90	5.50	5.01	4.97	4.42	4.09	3.38
4. Delhi(DVB)	NA	4.10	3.77	3.10	3.01	2.95	2.70	2.35
5. Gujarat	2.20	1.90	1.82	1.82	1.70	1.52	1.52	1.46
6. Haryana SEB/HVPN	5.90	5.50	5.30	5.42	4.64	4.08	3.62	3.29
HPGC						1.45	1.48	1.26
7. Himachal Pradesh	5.60	5.10	5.22	5.17	4.92	5.45	5.35	4.93
8. Jammu & Kashmir	10.10	10.60	9.30	7.18	7.13	7.85	7.36	6.22
9. Karnataka SEB/KPTCL	3.00	2.80	2.87	2.39	2.55	2.45	2.21	1.95
KPCL			8.61	6.65	5.73	4.32	3.56	3.12
10. Kerala	3.60	3.60	3.83	3.39	2.89	2.64	2.43	2.38
11. Madhya Pradesh	4.00	3.80	3.72	3.58	3.31	3.77	3.46	3.34
12. Maharashtra	3.00	2.70	2.60	2.53	2.42	2.66	2.69	2.37
13. Meghalaya	11.60	8.50	9.36	7.92	8.26	6.93	6.57	6.37
14. Orissa SEB/(GRIDCO)	6.30	5.90	6.17	5.76	5.71	0.70	0.69	0.57
OHPC			1.69	1.91	1.81	1.34	0.78	0.72
OPGC			0.00	0.00	0.00	0.00	0.00	0.00
15. Punjab	4.50	4.40	4.14	4.27	3.96	3.87	3.76	3.65
16. Rajasthan SEB/(Transco.)	5.00	4.20	3.99	3.67	3.48	3.15	2.21	2.05
Rajasthan(Genco.)							0.68	0.46
17. Tamil Nadu	3.90	3.60	3.55	3.58	3.30	3.27	2.82	2.57
18. UP SEB/(Power corp.)	3.80	3.50	3.50	3.42	3.42	2.94	2.55	2.24
UP(TPG Corp.)							0.80	0.75
UP(JVNL)							0.73	0.74
19. West Bengal	5.20	4.50	3.95	3.94	3.84	3.92	3.62	3.47
WBPDCL			0.38	0.42	0.38	0.41	0.33	0.32
Average :(I)	3.90	3.60	3.62	3.32	3.18	3.00	2.75	2.53
II. EDs								
1. Arunachal Pradesh	54.00	53.30	41.31	38.63	70.26	127.24	90.86	76.32
2. Goa	5.00	4.80	4.57	3.74	3.84	3.79	3.66	3.34
3. Manipur	27.00	23.30	20.10	17.87	31.90	31.23	29.71	21.62
4. Mizoram	13.00	11.10	9.06	13.47	10.98	9.97	8.25	6.62
5. Nagaland	34.40	31.10	28.92	27.92	29.50	27.60	23.05	21.00
6. Pondicherry	2.10	2.10	2.10	1.89	1.74	1.48	1.30	1.18
7. Sikkim	19.60	16.30	15.68	13.30	12.16	11.62	11.03	10.75
8. Tripura	25.00	22.50	18.77	18.07	14.81	14.02	13.00	11.25
Average :(II)	11.20	10.60	9.76	9.02	9.81	10.14	8.72	7.76
All India Average :	4.00	3.70	3.68	3.38	3.25	3.07	2.82	2.60

Annexure 4.20

Number of Employees per thousand consumers

	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Provis)	2000-01 (RE)	2001-02 (AP)
I. SEBs								
1. Andhra Pradesh	8.60	8.13	7.68	7.40	5.64	5.53	4.55	4.55
2. Assam	32.70	30.70	28.92	26.60	24.52	22.61	20.81	18.82
3. Bihar	23.10	21.80	19.24	18.77	17.92	15.38	13.18	11.24
4. Delhi(DVB)	12.20	12.60	11.79	10.83	10.19	10.21	7.72	7.19
5. Gujarat	8.10	8.00	7.91	7.63	7.68	7.14	6.73	6.73
6. Haryana	15.70	15.20	13.39	14.18	12.58	11.91	11.37	10.62
7. Himachal Pradesh	11.00	11.40	11.53	11.66	11.11	12.06	11.82	11.61
8. Jammu & Kashmir	26.10	27.30	26.77	25.90	26.04	25.31	24.15	24.39
9. Karnataka	7.00	6.30	5.86	5.38	4.95	4.64	3.52	3.52
10. Kerala	5.70	5.70	5.47	4.99	4.68	4.30	4.03	4.24
11. Madhya Pradesh	12.70	12.50	11.85	11.54	11.09	10.88	10.88	10.88
12. Maharashtra	11.00	10.20	9.71	9.27	8.96	8.61	8.61	8.61
13. Meghalaya	44.10	43.20	39.32	39.66	34.74	28.00	25.46	23.04
14. Orissa (GRIDCO)	24.60	24.20	23.49	23.38	21.69	7.50	7.50	6.50
15. Punjab	16.90	16.10	15.76	16.81	16.90	16.80	16.15	15.67
16. Rajasthan(Transco.)	14.00	13.00	12.17	11.62	11.17	10.05	7.20	6.61
17. Tamil Nadu	9.20	8.70	8.25	8.24	7.42	7.46	6.77	6.49
18. UP(Power corp.)	16.60	15.70	14.65	13.82	13.82	8.25	7.33	6.69
19. West Bengal	19.60	17.10	15.87	14.67	12.44	11.50	10.15	9.57
Average :(I)	12.00	11.40	10.75	10.40	9.70	8.75	7.81	7.59
II. EDs								
1. Arunachal Pradesh	45.00	50.00	48.24	43.00	66.67	98.10	80.87	77.50
2. Goa	11.00	10.90	11.50	10.29	10.48	10.21	11.31	10.95
3. Manipur	45.00	44.30	42.67	41.18	39.47	35.81	27.03	23.50
4. Mizoram	17.00	16.10	15.14	13.63	11.61	11.63	9.86	9.90
5. Nagaland	36.00	34.30	34.83	32.01	33.15	31.78	27.24	27.76
6. Pondicherry	11.10	10.40	9.95	9.47	8.75	8.35	8.35	8.50
7. Sikkim	32.40	32.90	27.78	24.28	23.36	22.47	21.25	22.28
8. Tripura	40.00	38.70	36.89	38.21	37.00	30.01	26.39	24.00
Average :(II)	25.20	24.40	23.84	22.76	24.11	25.26	22.56	21.68
All India Average :	12.20	11.50	10.92	10.57	9.89	8.97	8.00	7.78

Annexure 4.21

**Average Tariff for Sale of Electricity
1990-91 to 2001-2002**

(Paise/Kwh)

SEBs	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

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Annexure 4.21

**Average Tariff for Sale of Electricity
1990-91 to 2001-2002**

(Paise/Kwh)

SEBs	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 (Prov.)	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	156.0	166.65	165.29	175.00	211.00	222.00
2. Assam	205.6	215.81	262.00	307.41	351.24	367.34
3. Bihar	185.2	200.80	200.91	235.01	251.80	251.80
4. Delhi(DVB)	248.6	323.97	264.33	283.78	296.90	299.92
5. Gujarat	163.0	184.00	190.00	178.00	215.00	243.00
6. Haryana	155.3	187.36	199.49	198.31	205.36	225.37
7. Himachal Pradesh	143.5	162.32	173.15	196.80	220.90	231.88
8. Jammu & Kashmir	34.0	34.35	66.67	135.81	137.03	137.94
9. Karnataka	140.6	152.20	192.17	205.77	217.20	245.69
10. Kerala	95.6	124.60	130.83	165.78	189.13	225.31
11. Madhya Pradesh	176.5	170.36	156.08	198.50	204.92	204.95
12. Maharashtra	199.0	208.81	215.66	249.97	271.00	270.02
13. Meghalaya	127.7	129.14	129.14	135.64	161.02	183.32
14. Orissa (GRIDCO)	235.0	259.04	262.27	261.52	272.41	0.00
15. Punjab	136.1	147.79	156.81	162.24	177.29	184.10
16. Rajasthan(Transco.)	165.5	187.89	178.86	200.35	224.99	221.32
17. Tamil Nadu	172.9	194.63	200.57	203.92	224.00	237.44
18. UP(Power corp.)	143.0	171.56	171.56	234.08	258.57	259.07
19. West Bengal	151.6	182.02	183.79	218.79	223.66	257.13
Average :SEBs	165.74	180.85	187.03	207.26	226.49	240.34
II.EDs						
1. Arunachal Pradesh	200.0	150.00	150.00	200.00	300.00	300.00
2. Goa	171.4	187.10	240.26	272.29	301.48	292.45
3. Manipur	83.4	83.60	126.00	163.00	203.00	220.00
4. Mizoram	101.0	96.00	97.00	85.00	158.00	158.00
5. Nagaland	191.0	191.02	189.88	189.51	189.87	189.87
6. Pondicherry	139.1	144.55	156.75	167.14	174.71	176.75
7. Sikkim	73.0	75.00	80.45	88.46	99.54	115.35
8. Tripura	55.0	48.00	50.00	81.00	104.00	118.00
Average :(EDs)	126.10	132.27	162.76	181.16	207.07	205.73
All-India Average :	165.33	180.33	186.77	206.98	226.26	239.92

Annexure 4.22

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	0.00	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 :SEBs	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

Annexure 4.23

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	161.98	379.26	15.95	352.83	390.00	34.33	165.29
2. Assam	133.46	292.39	191.55	334.20	0.00	0.00	262.00
3. Bihar	110.36	225.70	11.38	277.06	343.66	184.28	200.91
4. Delhi(DVB)	149.83	380.22	50.00	384.56	0.00	69.23	264.33
5. Gujarat	188.00	360.00	17.00	367.74	439.00	160.00	190.00
6. Haryana	240.00	380.94	53.67	397.93	413.21	113.00	199.49
7. Himachal Pradesh	64.00	220.00	50.00	218.95	-	145.82	173.15
8. Jammu & Kashmir	48.00	86.00	50.00	70.00	-	-	66.67
9. Karnataka	196.00	543.45	23.57	385.04	363.57	-	192.17
10. Kerala	77.99	299.47	59.55	174.60	0.00	-	130.83
11. Madhya Pradesh	76.16	377.25	4.73	383.09	530.27	265.40	156.08
12. Maharashtra	164.76	459.34	30.00	369.62	390.00	230.00	215.66
13. Meghalaya	92.00	154.02	0.50	132.25	-	150.00	129.14
14. Orissa (GRIDCO)	148.43	341.68	96.45	273.60	440.22	-	262.27
15. Punjab	178.64	320.01	0.00	268.42	-	205.41	156.81
16. Rajasthan(Transco.) Rajasthan(Genco.)	139.89	319.00	25.58	313.75	362.18	234.78	178.86
17. Tamil Nadu	155.68	358.60	1.21	330.99	332.45	116.05	200.57
18. UP(Power corp.) UP(TPG Corp.) UP(JVNL)	104.95	358.18	49.65	383.45	414.53	15.98	171.56
19. West Bengal	107.76	213.80	26.36	276.54	336.79	320.35	183.79
Average :SEBs	139.84	331.99	21.01	324.33	410.33	167.09	187.03
II EDs							
1. Arunachal Pradesh	150.00	150.00	150.00	150.00	0.00	0.00	150.00
2. Goa	114.55	314.34	141.10	308.03	0.00	0.00	240.26
3. Manipur	123.00	197.00	100.00	71.30	0.00	0.00	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	189.88
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	80.45
8. Tripura	62.00	84.00	42.00	62.00	0.00	0.00	50.00
Average of EDs	94.45	215.79	33.73	232.64	0.00	-	162.76
All India Average	139.13	330.15	21.04	322.81	410.33	163.85	186.77

Annexure 4.24

Consumer Categorywise Average Tariff, 1999-00

(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	394.90	425.00	235.00	175.00
2. Assam	151.85	420.54	227.62	380.89	0.00	0.00	307.41
3. Bihar	109.50	259.81	13.37	334.26	348.26	180.88	235.01
4. Delhi(DVB)	149.25	403.58	50.00	403.33	0.00	0.00	283.78
5. Gujarat	210.00	384.00	15.00	391.06	463.00	221.00	178.00
6. Haryana	248.44	399.60	35.53	411.09	418.57	0.00	198.31
7. Himachal Pradesh	93.35	240.00	50.00	235.93	0.00	201.52	196.80
8. Jammu & Kashmir	85.00	160.00	220.00	135.00	0.00	0.00	135.81
9. Karnataka	201.00	572.12	31.53	410.01	413.93	0.00	205.77
10. Kerala	81.02	436.40	67.21	225.18	198.26	0.00	165.78
11. Madhya Pradesh	129.58	430.64	7.20	435.78	506.12	261.41	198.50
12. Maharashtra	180.43	448.03	45.74	353.65	382.34	259.25	249.97
13. Meghalaya	102.04	151.68	51.85	146.00	0.00	151.52	135.64
14. Orissa (GRIDCO)	163.62	360.83	101.97	319.14	373.87	199.67	261.52
15. Punjab	192.85	347.39	0.00	279.18	0.00	210.00	162.24
16. Rajasthan(Transco)	158.95	400.00	33.56	379.37	308.00	194.64	200.35
17. Tamil Nadu	152.53	361.81	1.18	342.11	347.09	114.67	203.92
18. UP(Power corp.)	158.15	431.50	64.28	412.90	408.18	17.95	234.08
19. West Bengal	148.88	235.18	36.00	321.31	388.88	400.00	218.79
Average :SEBs	161.59	372.05	22.61	343.37	415.30	191.73	207.26
II EDs							
1. Arunachal Pradesh	200.00	200.00	0.00	200.00	0.00	0.00	200.00
2. Goa	116.41	353.14	79.76	349.02	0.00	0.00	272.29
3. Manipur	148.54	210.00	210.00	139.32	0.00	0.00	163.00
4. Mizoram	90.00	98.00	0.00	91.00	0.00	0.00	85.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	189.51
6. Pondicherry	93.01	229.10	7.51	196.27	0.00	0.00	167.14
7. Sikkim	87.10	138.00	0.00	122.30	0.00	0.00	88.46
8. Tripura	78.00	103.00	59.00	107.00	0.00	60.00	81.00
Average of EDs	103.34	236.16	36.29	266.66	0.00	118.51	181.16
All India Average	160.68	369.93	22.64	342.04	415.30	190.07	206.98

Annexure 4.25

Consumer Categorywise Average Tariff, 2000-2001 (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	439.45	468.00	0.00	211.00
2. Assam	186.76	468.66	272.41	429.66	0.00	0.00	351.24
3. Bihar	109.50	276.60	13.37	362.26	376.24	180.88	251.80
4. Delhi(DVB)	149.86	415.81	50.00	424.80	0.00	0.00	296.90
5. Gujarat	243.00	448.00	39.00	439.57	506.00	231.00	215.00
6. Haryana	259.33	411.73	37.02	428.00	432.24	0.00	205.36
7. Himachal Pradesh	104.00	261.00	50.00	265.00	0.00	235.00	220.90
8. Jammu & Kashmir	85.00	160.00	220.00	135.00	0.00	0.00	137.03
9. Karnataka	198.00	572.12	30.51	409.93	413.93	0.00	217.20
10. Kerala	81.02	436.40	67.21	225.18	198.26	0.00	189.13
11. Madhya Pradesh	159.58	430.64	7.20	437.77	506.12	261.41	204.92
12. Maharashtra	248.02	456.39	82.28	419.93	419.93	260.00	271.00
13. Meghalaya	135.53	192.23	51.72	208.26	0.00	123.00	161.02
14. Orissa (GRIDCO)	175.72	369.74	107.73	322.98	375.71	223.00	272.41
15. Punjab	211.46	368.56	0.00	300.26	0.00	225.00	177.29
16. Rajasthan(Transco.)	190.87	429.76	46.26	392.88	405.88	0.00	224.99
17. Tamil Nadu	169.26	401.70	1.31	379.60	385.11	127.28	224.00
18. UP(Power corp.)	185.17	431.50	107.83	464.44	412.18	18.95	258.57
19. West Bengal	148.88	237.28	57.87	320.01	369.96	288.00	223.66
Average :SEBs	184.16	406.65	35.38	368.37	435.93	187.86	226.49
II EDs							
1. Arunachal Pradesh	300.00	300.00	0.00	300.00	0.00	0.00	300.00
2. Goa	134.41	390.48	112.84	379.76	0.00	175.00	301.48
3. Manipur	181.90	250.00	171.00	198.50	0.00	0.00	203.00
4. Mizoram	129.00	199.00	0.00	245.00	0.00	0.00	158.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	189.87
6. Pondicherry	94.95	235.82	7.51	205.54	0.00	0.00	174.71
7. Sikkim	97.00	152.00	0.00	135.00	0.00	0.00	99.54
8. Tripura	92.00	120.00	68.00	118.00	0.00	104.00	104.00
Average of EDs	119.09	254.45	41.69	266.74	0.00	190.54	207.07
All India Average	183.13	404.21	35.40	366.50	435.93	187.92	226.26

Annexure 4.26

Consumer Categorywise Average Tariff, 2001-02 (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	441.50	489.00	0.00	222.00
2. Assam	199.81	485.68	287.15	447.56	0.00	0.00	367.34
3. Bihar	109.50	276.60	13.37	362.26	376.24	180.88	251.80
4. Delhi(DVB)	150.19	420.00	50.00	427.79	0.00	0.00	299.92
5. Gujarat	265.00	501.00	62.00	476.67	538.00	241.00	243.00
6. Haryana	280.51	451.14	47.71	477.94	469.05	0.00	225.37
7. Himachal Pradesh	109.00	270.00	50.00	275.00	0.00	255.00	231.88
8. Jammu & Kashmir	85.00	160.00	220.00	135.00	0.00	0.00	137.94
9. Karnataka	282.00	572.12	38.80	480.73	491.99	0.00	245.69
10. Kerala	81.02	436.40	67.21	226.69	198.26	0.00	225.31
11. Madhya Pradesh	159.58	430.64	7.20	437.84	506.12	261.41	204.95
12. Maharashtra	248.02	456.39	82.28	208.84	419.93	260.00	270.02
13. Meghalaya	135.27	192.13	51.61	208.84	0.00	170.06	183.32
14. Orissa (GRIDCO)	0.00	0.00	0.00	0.00	0.00	201.00	0.00
15. Punjab	216.86	374.81	0.00	306.48	0.00	225.00	184.10
16. Rajasthan(Transco.)	190.93	432.00	46.33	395.13	404.97	0.00	221.32
17. Tamil Nadu	181.10	430.77	1.34	395.35	399.92	136.21	237.44
18. UP(Power corp.)	181.09	466.72	119.00	482.00	432.23	18.95	259.07
19. West Bengal	182.87	271.31	91.86	352.82	403.96	321.36	257.13
Average :SEBs	196.80	429.21	41.54	381.14	449.25	195.36	240.34
II EDs							
1. Arunachal Pradesh	300.00	300.00	0.00	300.00	0.00	0.00	300.00
2. Goa	143.78	374.38	125.01	347.38	0.00	212.60	292.45
3. Manipur	194.80	280.00	276.00	219.41	0.00	0.00	220.00
4. Mizoram	129.00	201.00	0.00	242.00	0.00	0.00	158.00
5. Nagaland	160.00	280.00	0.00	225.00	0.00	0.00	189.87
6. Pondicherry	95.63	238.10	7.51	208.49	0.00	0.00	176.75
7. Sikkim	100.00	200.00	0.00	150.00	0.00	0.00	115.35
8. Tripura	119.00	180.00	75.00	151.00	0.00	106.00	118.00
Average of EDs	126.19	258.51	51.77	257.62	0.00	127.62	205.73
All India Average	195.62	426.32	41.56	378.67	449.25	194.41	239.92

Annexure 4.27

Average Tariff for Agriculture

(Paise/Kwh)

	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	5.30	2.80	13.35	16.12	15.95	15.35	15.00	14.00
2. Assam	88.00	158.90	181.44	476.70	191.55	227.62	272.41	287.15
3. Bihar	15.20	16.20	14.02	12.15	11.38	13.37	13.37	13.37
4. Delhi(DVB)	NA	NA	NA	372.36	50.00	50.00	50.00	50.00
5. Gujarat	22.00	19.00	20.00	18.00	17.00	15.00	39.00	62.00
6. Haryana	45.50	51.90	52.41	61.08	53.67	35.53	37.02	47.71
7. Himachal Pradesh	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
8. Jammu & Kashmir	9.30	10.30	10.00	12.50	50.00	220.00	220.00	220.00
9. Karnataka	1.80	1.70	5.73	11.55	23.57	31.53	30.51	38.80
10. Kerala	23.90	23.70	26.99	54.63	59.55	67.21	67.21	67.21
11. Madhya Pradesh	3.70	4.20	6.82	5.30	4.73	7.20	7.20	7.20
12. Maharashtra	18.20	16.50	22.55	21.46	30.00	45.74	82.28	82.28
13. Meghalaya	53.30	47.00	49.65	49.30	0.50	51.85	51.72	51.61
14. Orissa (GRIDCO)	53.10	54.20	70.94	84.95	96.45	101.97	107.73	0.00
15. Punjab	34.50	38.50	28.46	Free supply	Free supply	Free supply	Free supply	Free supply
16. Rajasthan(Transco.)	30.10	27.20	31.22	34.58	25.58	33.56	46.26	46.33
17. Tamil Nadu	0.00	0.00	1.52	1.60	1.21	1.18	1.31	1.34
18. UP(Power corp.)	43.10	49.50	42.48	49.65	49.65	64.28	107.83	119.00
19. West Bengal	19.90	21.80	17.39	23.27	26.36	36.00	57.87	91.86
Average :	19.40	19.00	21.20	20.22	21.01	22.61	35.38	41.54

Annexure 4.28

Average Tariff for Industry

(Paise/Kwh)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	177.50	214.70	221.80	236.00	309.24	340.00	352.83	394.90	439.45	441.50
2. Assam	99.10	132.80	129.70	195.30	209.13	192.56	334.20	380.89	429.66	447.56
3. Bihar	174.60	205.00	220.50	247.40	246.77	275.99	277.06	334.26	362.26	362.26
4. Delhi(DVB)	190.10	NA	NA	NA	NA	492.12	384.56	403.33	424.80	427.79
5. Gujarat	188.00	220.20	220.00	235.00	287.87	338.70	367.74	391.06	439.57	476.67
6. Haryana	171.00	195.70	222.30	266.60	319.87	372.20	397.93	411.09	428.00	477.94
7. Himachal Pradesh	97.00	105.00	125.00	135.00	161.23	198.00	218.95	235.93	265.00	275.00
8. Jammu & Kashmir	46.60	39.60	40.30	41.00	40.00	46.00	70.00	135.00	135.00	135.00
9. Karnataka	185.40	221.60	231.00	262.20	329.88	415.05	385.04	410.01	409.93	480.73
10. Kerala	82.50	92.80	101.10	104.20	126.79	163.20	174.60	225.18	225.18	226.69
11. Madhya Pradesh	183.90	211.00	238.00	268.30	363.00	377.48	383.09	435.78	437.77	437.84
12. Maharashtra	211.10	232.90	270.50	271.80	330.38	354.44	369.62	353.65	419.93	208.84
13. Meghalaya	106.10	144.00	146.90	130.00	130.47	158.17	132.25	146.00	208.26	208.84
14. Orissa	89.10	111.30	170.80	193.60	302.97	322.27	273.60	319.14	322.98	0.00
15. Punjab	125.80	153.50	165.10	187.10	219.22	241.75	268.42	279.18	300.26	306.48
16. Rajasthan(Transco.)	156.90	178.00	204.10	234.60	271.56	323.60	313.75	379.37	392.88	395.13
17. Tamil Nadu	167.20	202.40	245.10	270.50	263.42	296.16	330.99	342.11	379.60	395.35
18. UP(Power corp.)	210.90	225.20	240.80	272.10	275.95	383.45	383.45	412.90	464.44	482.00
19. West Bengal	125.90	149.50	183.00	209.30	237.07	280.52	276.54	321.31	320.01	352.82
Average :	171.50	198.20	219.90	245.50	276.89	314.63	324.33	343.37	368.37	381.14

Annexure 4.29

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 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	94.20	90.50	72.10	62.20	73.07	69.53	57.45	55.82	61.59	61.67
2. Assam	47.40	49.70	53.90	57.10	60.95	47.21	57.69	71.01	63.09	68.19
3. Bihar	63.70	73.50	66.40	70.80	63.74	63.45	57.95	64.28	64.20	64.93
4. Delhi(DVB)	81.70	NA	NA	70.60	71.97	72.61	58.05	58.25	62.55	63.86
5. Gujarat	68.40	76.60	74.60	72.90	75.44	74.32	68.59	56.97	60.65	66.50
6. Haryana	54.00	50.40	61.50	63.60	64.50	63.86	66.67	56.38	50.87	54.71
7. Himachal Pradesh	88.50	74.80	91.90	98.80	91.83	89.93	82.41	71.05	84.98	91.20
8. Jammu & Kashmir	21.30	16.70	10.30	13.20	10.87	12.49	10.70	20.77	18.50	17.96
9. Karnataka	96.50	95.30	86.80	74.90	75.06	83.98	72.36	72.99	66.92	65.59
10. Kerala	84.70	83.50	79.60	69.00	59.28	63.57	72.99	68.95	62.41	64.87
11. Madhya Pradesh	84.00	80.70	77.50	79.50	81.64	73.60	70.50	75.73	77.40	75.17
12. Maharashtra	98.50	98.80	99.40	91.20	96.21	96.86	96.57	83.67	85.04	75.52
13. Meghalaya	81.30	93.60	71.20	72.70	78.64	71.79	56.68	59.90	68.22	68.78
14. Orissa	78.10	71.20	80.70	77.10	72.84	73.64	75.38	93.88	92.68	92.47
15. Punjab	57.60	61.80	66.70	69.70	73.16	68.09	66.64	62.53	64.58	64.55
16. Rajasthan(Transco.)	76.00	70.40	67.80	67.80	71.93	74.53	71.37	66.60	65.91	60.11
17. Tamil Nadu	86.00	88.70	98.80	97.10	93.44	93.52	86.99	79.90	82.73	76.64
18. UP(Power corp.)	70.60	66.00	69.00	70.70	64.32	67.73	67.73	65.20	71.61	74.29
19. West Bengal	71.50	78.40	73.70	78.50	72.07	73.17	61.20	65.77	64.96	68.24
Average :	82.20	78.30	78.30	76.10	76.81	75.95	71.49	68.06	69.36	68.59

Annexure 4.30

**Commercial Profit/Loss
(with subsidy)**

(Rs.crore)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh APSEB/APTRANSCO	-4	-23	-37	4	-89	-1376	-130	-53	-932	-1194
2. Assam	-205	-197	-255	-261	-244	-439	-322	-214	-379	-370
3. Bihar	-280	-190	-189	-211	-442	-495	-605	-511	-670	-753
4. Delhi(DVB)	-207	NA	NA	-578	-626	-760	-1039	-1103	-1055	-1092
5. Gujarat	100	92	106	108	111	119	-366	-2501	-2604	-2135
6. Haryana	-368	-447	-13	46	7	-32	-340	-835	-1548	-1537
7. Himachal Pradesh	2	-51	19	11	-19	-33	-88	-206	-92	-48
8. Jammu & Kashmir	-225	-293	-347	-363	-507	-661	-835	-793	-990	-1141
9. Karnataka	32	34	43	51	54	58	67	76	76	86
10. Kerala	-65	-75	-120	-130	-176	-199	-205	-181	-348	-445
11. Madhya Pradesh	-113	38	-80	-8	-163	-812	-2534	-2718	-2800	-3183
12. Maharashtra	162	189	276	222	166	295	515	605	-1404	-3527
13. Meghalaya	-2	4	-14	-12	-7	-17	-41	-43	-34	-38
14. Orissa						0.00	0.00	0.00	0.00	0.00
OSEB/GRIDCO	26	30	25	27	-363	-386	-538	-187	-212	-230
15. Punjab	-626	-693	-681	-644	-603	-943	-1354	-1709	-1477	-1633
16. Rajasthan(Transco.)	22	10	77	81	63	65	-134	-133	615	-2412
17. Tamil Nadu	92	226	348	339	330	274	335	-1192	-1197	-2260
18. UP(Power corp.)	-808	-1202	85	381	-1821	-1853	-1853	-2596	-1734	-1887
19. West Bengal SEB	-258	-158	-242	-240	-343	-402	-1040	-793	-1009	-1036
Total :	-2725	-2706	-998	-1178	-4674	-7598	-10509	-15088	-17794	-24837

Annexure 4.31 (a)

Commercial Losses for the Year 1996-97 (with subsidy)

(Rs.crore)

SEBs	Total Revenue 1996-97	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total 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	43.3	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	-429.2	100.83	-530.03	96.4	-626.43
5. Gujarat	5648	4468	1180	444	736	625	111
6. Haryana (HVPN & Discoms)	2187.46	1759.9	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	445.18	-383.18	34.12	-417.3	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	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	1024.6	858.13	166.47
13. Meghalaya	66.83	47.43	19.4	6.3	13.1	20	-6.9
14. Orissa							
OSEB/GRIDCO	1209.68	1337.9	-128.22	132.96	-261.18	102.3	-363.48
15. Punjab	2725	2432.06	292.94	301.28	-8.34	595.09	-603.43
16. Rajasthan(Transco.)	3362.23	2658.97	703.26	230.07	473.19	409.97	63.22
17. Tamil Nadu	5077	4009.95	1067.05	315.12	751.93	422.29	329.64
18. UP(Power corp.)	4189.4	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 :	52567.4	44508.29	8059.13	4840.85	3218.28	7892.59	-4674.31

Annexure 4.31 (b)

Commercial Losses for the Year 1997-98 (With subsidy)

(Rs.crore)

SEBs	Total Revenue 1997-98	Revenue Expenditure	Gross Operating Surplus	Depriciation	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	1987.26	-163.26	177.29	-340.55	154.35	-494.9
4. Delhi (DVB)	2300.04	2827.58	-527.54	117.37	-644.91	115.33	-760.24
5. Gujarat	6751	5403	1348	515	833	714	119
6. Haryana (HVPN & Discoms)	2568.45	2166	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	-660.6
9. Karnataka SEB	3212.9	2604.67	608.23	216.25	391.98	333.49	58.49
10. Kerala	1303.5	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	6.9	24.04	-17.14
14. Orissa	1456.99	1575.95	-118.96	141.66	-260.62	125.79	-386.41
OSEB/GRIDCO							
15. Punjab	3141.5	3034.03	107.47	306.34	-198.87	744.42	-943.29
16. Rajasthan(Transco.)	4042.72	3243.38	799.34	268.44	530.9	465.55	65.35
17. Tamil Nadu	5881.11	4763.55	1117.56	378.73	738.83	465.19	273.64
18. UP(Power corp.)	5019.11	4443.93	575.18	758.26	-183.08	1670.03	-1853.11
19. West Bengal SEB	2069.42	2103.12	-33.7	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

Annexure 4.31 (c)

Commercial Losses for the Year 1998-99 (With subsidy)

(Rs.crore)

SEBs	Total Revenue 1998-99	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/ Loss
1. Andhra Pradesh							
APSEB/APTRANSCO	7126.48	5408.72	1717.76	458.93	1258.83	1389.08	-130.25
2. Assam	467.39	531.38	-63.99	74.84	-138.83	183.63	-322.46
3. Bihar	1841.13	2139.09	-297.96	178.1	-476.06	129.06	-605.12
4. Delhi (DVB)	2680.76	3403.99	-723.23	50.99	-774.22	264.73	-1038.95
5. Gujarat	7626	6705.11	920.89	558	362.89	729	-366.11
6. Haryana (HVPN& Discoms)	2439.69	2382.74	56.95	150.24	-93.29	246.82	-340.11
7. Himachal Pradesh	499.48	441.17	58.31	21.5	36.81	124.94	-88.13
8. Jammu & Kashmir	100.19	769.47	-669.28	43.63	-712.91	121.6	-834.51
9. Karnataka SEB	3927.25	3219.45	707.8	243.95	463.85	396.86	66.99
10. Kerala	1431.89	1223.68	208.21	119.76	88.45	293.69	-205.24
11. Madhya Pradesh	4160.93	4950.8	-789.87	418.14	-1208.01	1326.47	-2534.48
12. Maharashtra	10861.01	8462.44	2398.57	1042.11	1356.46	841	515.46
13. Meghalaya	77.3	68.09	9.21	14.33	-5.12	35.62	-40.74
14. Orissa							
OSEB/GRIDCO	1395.29	1611.43	-216.14	149.91	-366.05	172.21	-538.26
15. Punjab	3607.3	3664.47	-57.17	323.5	-380.67	973.75	-1354.42
16. Rajasthan(Transco.)	4513.44	3632.72	880.72	286.27	594.45	728.72	-134.27
17. Tamil Nadu	6758.75	5492.64	1266.11	443.03	823.08	488.14	334.94
18. UP(Power corp.)	5019.11	4443.93	575.18	758.26	-183.08	1670.03	-1853.11
19. West Bengal SEB	1941.67	2516.75	-575.08	129.69	-704.77	335.21	-1039.98
Total of SEBs :	66475.06	61068.07	5406.99	5465.18	-58.19	10450.56	-10508.75

Annexure 4.31 (d)

Commercial Losses for the Year 1999-2000 (With subsidy) - Provisional

(Rs.crore)

SEBs	Total Revenue 1999-00	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/ Loss
1. Andhra Pradesh							
APSEB/APTRANSCO	8046.94	6960.46	1086.48	301.45	785.03	837.84	-52.81
2. Assam	569.34	537.12	32.22	79.61	-47.39	166.45	-213.84
3. Bihar	2286.17	2479.99	-193.82	184.73	-378.55	132.92	-511.47
4. Delhi (DVB)	2992.53	3702.98	-710.45	72.89	-783.34	320.06	-1103.4
5. Gujarat	7262	8357.12	-1095.12	591	-1686.12	815	-2501.12
6. Haryana (HVPN& Discoms)	2551.64	3013.89	-462.25	156.52	-618.77	216.7	-835.47
7. Himachal Pradesh	587.58	619.27	-31.69	23.46	-55.15	150.52	-205.67
8. Jammu & Kashmir	208.52	828.47	-619.95	43.62	-663.57	129.69	-793.26
9. Karnataka SEB	4591.23	3862.68	728.55	283.87	444.68	368.98	75.7
10. Kerala	2173.62	1776.53	397.09	143.89	253.2	434.19	-180.99
11. Madhya Pradesh	4661.5	5517.81	-856.31	557.07	-1413.38	1304.34	-2717.72
12. Maharashtra	13147.32	10381.64	2765.68	1234.79	1530.89	926.18	604.71
13. Meghalaya	90.12	82.5	7.62	15.04	-7.42	35.8	-43.22
14. Orissa							
OSEB/GRIDCO	1537.54	1332.93	204.61	84.33	120.28	307.09	-186.81
15. Punjab	3970.59	4147.17	-176.58	420.83	-597.41	1111.79	-1709.2
16. Rajasthan(Transco.)	5551.62	4494.41	1057.21	351.34	705.87	838.73	-132.86
17. Tamil Nadu	6575.47	6639.11	-63.64	547.09	-610.73	581.41	-1192.14
18. UP(Power corp.)	5904.19	7560.72	-1656.53	666.47	-2323	272.53	-2595.53
19. West Bengal SEB	2387.5	2657.69	-270.19	139.59	-409.78	383.26	-793.04
Total of SEBs :	75095.42	74952.49	142.93	5897.59	-5754.66	9333.48	-15088.14

Annexure 4.31 (e)

Commercial Losses for the Year 2000-2001 (With subsidy) - RE

(Rs.crore)

SEBs	Total Revenue 2000-01	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/ Loss
1. Andhra Pradesh							
APSEB/APTRANSCO	8824.99	8185.02	639.97	381.28	258.69	1191.06	-932.37
2. Assam	687.85	763.71	-75.86	86.38	-162.24	216.65	-378.89
3. Bihar	2424.43	2771.89	-347.46	200	-547.46	122.06	-669.52
4. Delhi (DVB)	3290.3	3840.34	-550.04	99.18	-649.22	405.78	-1055
5. Gujarat	8539	9567.81	-1028.81	634	-1662.81	941	-2603.81
6. Haryana (HVPN& Discoms)	2875.34	3940.05	-1064.71	167.13	-1231.84	316.52	-1548.36
7. Himachal Pradesh	686.72	637.4	49.32	25.12	24.2	116.56	-92.36
8. Jammu & Kashmir	225.5	1021.61	-796.11	46.3	-842.41	148.03	-990.44
9. Karnataka SEB	5683.33	4874.96	808.37	299	509.37	433.08	76.29
10. Kerala	2894.71	2487.82	406.89	150.62	256.27	604.25	-347.98
11. Madhya Pradesh	5240.12	6091.86	-851.74	628.71	-1480.45	1319.17	-2799.62
12. Maharashtra	11853.38	10603.12	1250.26	1403.45	-153.19	1250.4	-1403.59
13. Meghalaya	109.15	90.75	18.4	15.79	2.61	36.6	-33.99
14. Orissa							
OSEB/GRIDCO	1705.4	1520.54	184.86	87.8	97.06	308.84	-211.78
15. Punjab	4668.73	4475.05	193.68	452.2	-258.52	1218.13	-1476.65
16. Rajasthan(Transco.)	6651.61	5017.51	1634.1	329.49	1304.61	690.02	614.59
17. Tamil Nadu	7817.02	7708.5	108.52	595.1	-486.58	710.3	-1196.88
18. UP(Power corp.)	7404.54	8273.59	-869.05	393.8	-1262.85	471.14	-1733.99
19. West Bengal SEB	2433.61	2879.56	-445.95	144.07	-590.02	419.35	-1009.37
Total of SEBs :	84015.73	84751.09	-735.36	6139.42	-6874.78	10918.94	-17793.72

Annexure 4.31 (f)

Commercial Losses for the Year 2001-02 (AP)

SEBs	Total Revenue 2001-02	Revenue Expenditure	Gross Operating Surplus	Depriciation	Net Operating Surplus	Total Interest Payable	Commercial Profit/ Loss
1. Andhra Pradesh APSEB/APTRANSCO	9548.08	8866.23	681.85	523.72	158.13	1352.17	-1194.04
2. Assam	843.15	833.32	9.83	91.08	-81.25	289.14	-370.39
3. Bihar	2677.75	3106.77	-429.02	210.00	-639.02	114.44	-753.46
4. Delhi (DVB)	3725.65	4263.57	-537.92	118.30	-656.22	436.20	-1092.42
5. Gujarat	9811.00	10134.76	-323.76	710.00	-1033.76	1101.00	-2134.76
6. Haryana (HVPN & Discoms)	3284.59	4263.27	-978.68	181.29	-1159.97	377.40	-1537.37
7. Himachal Pradesh	811.24	694.62	116.62	32.01	84.61	132.49	-47.88
8. Jammu & Kashmir	250.60	1178.06	-927.46	49.63	-977.09	164.03	-1141.12
9. Karnataka SEB	7410.56	6523.72	886.84	345.00	541.84	455.44	86.40
10. Kerala	3664.35	3095.61	568.74	167.61	401.13	845.80	-444.67
11. Madhya Pradesh	5437.46	6613.79	-1176.33	684.98	-1861.31	1321.59	-3182.90
12. Maharashtra	13299.88	13766.12	-466.24	1587.67	-2053.91	1473.31	-3527.22
13. Meghalaya	122.89	106.14	16.75	16.60	0.15	38.34	-38.19
14. Orissa OSEB/GRIDCO	1877.59	1638.77	238.82	103.60	135.22	365.54	-230.32
15. Punjab	4949.18	4622.81	326.37	696.20	-369.83	1263.30	-1633.13
16. Rajasthan(Transco.)	4322.88	5848.79	-1525.91	341.40	-1867.31	544.82	-2412.13
17. Tamil Nadu	9001.94	9754.08	-752.14	654.61	-1406.75	853.38	-2260.13
18. UP(Power corp.)	8858.95	9120.63	-261.68	413.39	-675.07	1212.21	-1887.28
19. West Bengal SEB	2919.97	3260.78	-340.81	163.45	-504.26	531.95	-1036.21
Total of SEBs :	92817.71	97691.84	-4874.13	7090.54	-11964.67	12872.55	-24837.22

Annexure 4.32

**Commercial Profit/Loss
(without subsidy)**

(Rs.crore)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	-4	-23	-981	-1255	-939	-1376	-2679	-3117	-2559	-2820
2. Assam	-205	-197	-255	-261	-244	-439	-322	-214	-379	-370
3. Bihar	-280	-190	-189	-211	-442	-495	-605	-511	-670	-753
4. Delhi(DVB)	-207	-	0	-578	-626	-760	-1039	-1103	-1055	-1092
5. Gujarat	-519	-493	-550	-1003	-952	-1364	-2039	-3778	-3920	-3491
6. Haryana	-404	-507	-468	-554	-635	-765	-704	-1247	-1960	-1949
7. Himachal Pradesh	2	-51	19	11	-19	-33	-88	-206	-92	-48
8. Jammu & Kashmir	-225	-293	-347	-363	-507	-661	-835	-793	-990	-1141
9. Karnataka	-19	-2	-164	-502	-652	-322	-847	-975	-1675	-2340
10. Kerala	-65	-75	-129	-183	-208	-199	-411	-646	-1129	-1354
11. Madhya Pradesh	-493	-377	-594	-602	-464	-1058	-2655	-3151	-3264	-3682
12. Maharashtra	162	189	276	-408	-92	-11	160	-1479	-1404	-3527
13. Meghalaya	-8	-3	-21	-20	-15	-26	-50	-53	-44	-49
14. Orissa	-85	-196	-136	-231	-375	-392	-538	-187	-216	-230
15. Punjab	-626	-693	-681	-644	-603	-943	-1354	-2113	-1477	-1633
16. Rajasthan(Transco.)	-260	-415	-412	-430	-498	-640	-1331	-1899	615	-2412
17. Tamil Nadu	-258	-302	-2	-77	-257	-296	-741	-1442	-1447	-2510
18. UP(Power corp.)	-808	-1202	-1152	-1136	-3378	-3692	-3692	-2596	-2534	-2687
19. West Bengal	-258	-231	-339	-322	-398	-492	-1089	-842	-1059	-1086
Total :	-4560	-5060	-6125	-8770	-11305	-13963	-20860	-26353	-25259	-33177

Annexure 4.33

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 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	726	925	1350	1748	1571	2087	2702	3051	3685	4176
2. Assam	6	9	11	9	7	0	14	10	14	16
3. Bihar	268	252	297	300	351	451	463	537	586	649
4. Delhi(DVB)	9	-	-	NA	NA	1	35	43	48	54
5. Gujarat	1055	1206	1266	1647	1887	2470	3180	4446	4577	4555
6. Haryana	457	540	490	612	770	893	992	1400	1896	2010
7. Himachal Pradesh	1	2	1	1	1	1	2	3	3	4
8. Jammu & Kashmir	28	53	67	71	93	123	138	20	30	33
9. Karnataka	497	668	871	1109	1255	1530	1535	1565	1899	2629
10. Kerala	0	16	23	36	44	48	49	65	97	146
11. Madhya Pradesh	421	756	1104	1416	1795	2185	2881	2954	3134	3361
12. Maharashtra	1031	1131	1647	2250	2556	2986	3087	2604	2586	3279
13. Meghalaya	0	0	0	0	0	0	0	0	0	0
14. Orissa	21	39	20	30	40	52	66	13	N.A.	N.A.
15. Punjab	687	797	781	829	1009	1314	1779	2141	2251	2339
16. Rajasthan(Transco.)	348	468	623	808	963	1116	1561	1984	2056	2341
17. Tamil Nadu	643	760	947	1133	1225	1502	1733	2106	2443	3139
18. UP(Power corp.)	1035	1227	1275	1402	1762	1926	1926	1322	1257	1326
19. West Bengal	104	115	169	207	257	337	330	384	390	405
Total :	7335	8966	10941	13606	15586	19021	22473	24650	26950	30462

Annexure 4.34

**Subsidy for Agricultural Sales after
introduction of 50 paise/kwh**

(Rs.crore)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	395	532	869	1210	1284	1771	2363	2697	3292	3742
2. Assam	6	9	11	9	7	0	14	10	14	16
3. Bihar	207	204	250	257	305	395	410	481	529	584
4. Delhi(DVB)	8	NA	NA	NA	NA	1	35	43	48	54
5. Gujarat	752	938	1029	1333	1585	2126	2777	3924	4417	4555
6. Haryana	343	457	473	612	770	893	992	1335	1829	1998
7. Himachal Pradesh	1	1	1	1	1	1	2	3	3	4
8. Jammu & Kashmir	21	43	54	59	79	107	138	20	30	33
9. Karnataka	250	377	519	754	949	1179	1350	1449	1773	2541
10. Kerala	0	11	16	27	37	50	49	65	97	146
11. Madhya Pradesh	329	590	791	1051	1424	1753	2352	2543	2697	2909
12. Maharashtra	741	890	1283	1803	2175	2547	2767	2560	2586	3279
13. Meghalaya	0	0	0	0	0	0	0	0	0	0
14. Orissa	15	29	21	30	40	52	66	13	25	0
15. Punjab	445	604	688	761	872	1011	1403	1730	1841	1929
16. Rajasthan(Transco.)	286	401	548	709	874	1039	1414	1876	2030	2314
17. Tamil Nadu	385	497	635	802	902	1150	1364	1701	2001	2644
18. UP(Power corp.)	879	1066	1210	1398	1688	1922	1922	1322	1257	1326
19. West Bengal	82	95	138	172	212	298	302	366	390	405
Total :	5143	6744	8536	10985	13205	16294	19719	22139	24859	28478

Annexure 4.35

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 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	0.0	0.1	944.1	1259.1	850.4	0.0	2549.2	3064.4	1626.3	1626.3
2. Assam	0.0	0.0	0.1	0.5	0.0	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	0.0
4. Delhi(DVB)	0.0	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	1673.0	1277.0	1316.0	1356.0
6. Haryana	35.0	60.0	455.0	599.7	641.7	732.4	364.0	412.0	412.0	412.0
7. Himachal Pradesh	0.0	0.0	0.0	0.1	0.0	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	0.0
9. Karnataka	51.6	35.8	207.2	553.6	705.8	380.1	913.9	1050.6	1751.2	2426.5
10. Kerala	0.0	0.0	8.6	53.2	31.5	0.0	205.8	464.7	781.0	909.0
11. Madhya Pradesh	380.1	415.2	514.7	593.9	300.4	245.4	120.5	433.1	464.4	498.9
12. Maharashtra	0.0	0.0	0.0	629.9	258.6	305.6	355.1	2084.2	0.0	0.0
13. Meghalaya	6.5	7.0	7.0	8.0	8.5	9.0	9.5	9.3	10.5	11.0
14. Orissa	1390.0	226.0	161.0	257.6	11.4	5.3	0.0	0.0	4.0	0.0
15. Punjab	0.0	0.0	0.0	0.0	0.0	0.0	0.0	403.7	0.0	0.0
16. Rajasthan(Transco.)	281.6	424.9	489.3	510.7	560.8	704.9	1196.5	1766.1	0.0	0.0
17. Tamil Nadu	350.1	527.1	350.1	415.9	586.5	570.1	1076.1	250.0	250.0	250.0
18. UP(Power corp.)	0.0	0.0	1237.0	1517.0	1557.0	1838.9	1838.9	0.0	800.0	800.0
19. West Bengal	68.1	73.2	97.1	81.7	55.0	90.0	49.2	49.4	50.0	50.0
Total:	3182.0	2354.3	5127.1	7592.0	6630.6	6364.8	10351.6	11264.5	7465.3	8339.6

Annexure 4.36

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 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	40.4	63.6	118.7	159.3	271.1	336.1	639.4	836.4	1177.8	1249.2
2. Assam	37.2	82.4	79.3	90.1	127.5	188.7	178.0	172.1	239.7	270.0
3. Bihar	40.0	56.3	89.2	118.9	158.3	181.1	226.2	264.9	301.4	329.2
4. Delhi(DVB)	297.4	-	-	-	-	-	-	-	1152.5	1264.7
5. Gujarat	88.0	94.9	121.8	136.1	131.4	201.6	235.8	290.1	348.0	348.0
6. Haryana	95.6	137.2	113.2	123.1	127.8	162.9	119.1	213.0	340.6	331.1
7. Himachal Pradesh	13.7	25.9	23.2	19.9	35.4	50.3	69.3	95.7	88.3	91.7
8. Jammu & Kashmir	49.5	62.0	70.0	93.8	132.7	170.7	230.2	363.3	443.3	460.2
9. Karnataka	22.5	9.2	35.3	118.5	160.1	42.4	155.8	285.7	521.4	408.5
10. Kerala	60.5	83.4	114.7	204.0	345.6	439.8	450.8	721.5	1098.1	1517.2
11. Madhya Pradesh	252.7	258.4	315.4	401.5	538.6	635.0	761.7	656.3	586.0	649.8
12. Maharashtra	151.6	193.3	190.2	326.7	380.3	340.7	346.3	763.8	531.5	1070.2
13. Meghalaya	1.4	1.1	2.8	5.9	7.6	11.7	16.6	16.8	13.7	17.8
14. Orissa	80.4	122.4	92.1	143.5	282.4	341.6	357.0	-3.3	N.A.	N.A.
15. Punjab	54.3	83.1	108.1	119.6	161.8	231.3	207.1	256.3	257.0	292.5
16. Rajasthan(Transco.)	183.3	127.5	163.4	220.7	242.6	323.7	383.3	505.2	468.0	579.6
17. Tamil Nadu	141.8	147.6	158.6	192.7	237.4	217.2	395.4	601.1	649.9	883.9
18. UP(Power corp.)	331.8	468.5	563.5	557.5	806.9	1079.0	1079.0	1621.9	1291.2	1927.8
19. West Bengal	92.9	114.0	177.3	192.6	238.5	304.6	481.4	460.3	527.6	547.0
Total :	2034.9	2130.8	2536.8	3224.4	4386.0	5258.4	6332.5	8121.1	10036.1	12238.5

Annexure 4.37

Subsidy for Inter-State Sales

Rs.(Crore)

SEBs	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
1. Andhra Pradesh	11.2	29.6	24.6	2.3	0.0	0.0
2. Assam	13.4	2.4	0.0	0.0	0.0	0.0
3. Bihar	7.3	18.5	26.7	26.7	31.5	33.7
4. Delhi(DVB)	0.0	192.3	117.9	0.0	0.0	0.0
5. Gujarat	0.0	0.0	31.7	12.0	16.1	16.2
6. Haryana	3.2	15.8	18.4	0.0	0.0	0.0
7. Himachal Pradesh	-10.3	11.1	33.6	36.1	2.1	-15.2
8. Jammu & Kashmir	0.0	0.0	0.0	0.0	0.0	0.0
9. Karnataka	0.0	0.0	0.0	0.0	0.0	0.0
10. Kerala	0.0	0.0	0.0	0.0	0.0	0.0
11. Madhya Pradesh	19.1	14.6	-2.5	1.0	1.0	1.2
12. Maharashtra	-11.3	3.7	-7.2	25.0	35.2	68.3
13. Meghalaya	-0.7	8.4	13.1	13.2	17.9	7.9
14. Orissa	0.0	0.0	0.0	-24.2	-40.2	-15.5
15. Punjab	14.5	19.1	42.1	34.6	17.8	21.7
16. Rajasthan(Transco.)	20.3	23.5	21.6	76.9	44.4	0.0
17. Tamil Nadu	15.9	20.1	23.5	31.6	35.3	45.8
18. UP(Power corp.)	93.3	112.7	112.7	139.8	182.3	194.4
19. West Bengal	6.7	-1.3	-0.3	-1.3	1.2	1.2
Total :	238.8	457.1	455.9	373.6	344.6	359.8

Annexure-4.38a

Uncovered Subsidy for 1996-97

(Rs. Crore)

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the State	Net Subsidy	Surplus from Other Users	Uncovered Subsidy
1. Andhra Pradesh	1571.00	271.10	11.20	1853.30	850.37	1002.93	638.85	364.08
2. Assam	7.00	127.50	13.40	147.90	0.00	147.90	-134.92	282.82
3. Bihar	351.00	158.30	7.30	516.60	0.00	516.60	-206.02	722.62
4. Delhi(DVB)	NA	-	0.00	0.00	0.00	0.00	NA	0.00
5. Gujarat	1887.00	131.40	0.00	2018.40	1063.00	955.40	887.71	67.69
6. Haryana	770.00	127.80	3.20	901.00	641.72	259.28	126.70	132.58
7. Himachal Pradesh	1.00	35.40	-10.30	26.10	0.00	26.10	-5.58	31.68
8. Jammu & Kashmir	93.00	132.70	0.00	225.70	0.00	225.70	-285.86	511.56
9. Karnataka	1255.00	160.10	0.00	1415.10	705.82	709.28	706.57	2.71
10. Kerala	44.00	345.60	0.00	389.60	31.50	358.10	-71.26	429.36
11. Madhya Pradesh	1795.00	538.60	19.10	2352.70	300.43	2052.27	1412.90	639.37
12. Maharashtra	2556.00	380.30	-11.30	2925.00	258.61	2666.39	2590.12	76.27
13. Meghalaya	0.00	7.60	-0.70	6.90	8.50	-1.60	-5.21	3.61
14. Orissa	40.00	282.40	0.00	322.40	11.38	311.02	-121.44	432.46
15. Punjab	1009.00	161.80	14.50	1185.30	0.00	1185.30	291.51	893.79
16. Rajasthan(Transco.)	963.00	242.60	20.30	1225.90	560.76	665.14	318.10	347.04
17. Tamil Nadu	1225.00	237.40	15.90	1478.30	586.51	891.79	1167.34	-275.55
18. UP(Power corp.)	1762.00	806.90	93.30	2662.20	1557.00	1105.20	517.73	587.47
19. West Bengal	257.00	238.50	6.70	502.20	55.00	447.20	-52.13	499.33
Total :	15586.00	4386.00	238.75	20210.75	6630.60	13580.15	7775.12	5805.03

Annexure-4.38b

Uncovered Subsidy for 1997-98

(Rs. Crore)

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the	Net Sub-State	Surplus from sidy	Uncovered Subsidy Other Users
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	1314.00	231.33	19.06	1564.39	0.00	1564.39	260.90	1303.49
16. Rajasthan(Transco.)	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. UP(Power corp.)	1925.58	1079.00	112.73	3117.31	1838.90	1278.41	899.40	379.01
19. West Benga	337.40	304.64	-1.29	640.76	90.00	550.76	-30.06	580.82
Total :	19020.67	5258.43	470.68	24749.78	6364.75	18385.03	9010.87	9374.16

Annexure-4.38c

Uncovered Subsidy for 1998-99

(Rs. Crore)

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the	Net Sub-State	Surplus from sidy	Uncovered Subsidy Other Users
1. Andhra Pradesh	2701.56	639.41	24.57	3365.54	2549.19	816.35	286.94	529.41
2. Assam	14.11	178.04	0.00	192.14	0.00	192.14	-142.04	334.18
3. Bihar	463.38	226.23	26.72	716.33	0.00	716.33	-312.23	1028.56
4. Delhi(DVB)	0.00	0.00	117.92	117.92	0.00	117.92	-481.86	599.78
5. Gujarat	3180.32	235.85	31.65	3447.82	1673.00	1774.82	943.55	831.27
6. Haryana	992.04	119.10	18.44	1129.58	364.00	765.58	202.90	562.68
7. Himachal Pradesh	1.72	69.29	33.56	104.57	0.00	104.57	2.79	101.78
8. Jammu & Kashmir	137.66	230.17	0.00	367.83	0.00	367.83	-466.83	834.66
9. Karnataka	1535.18	155.84	0.00	1691.02	913.89	777.13	623.08	154.05
10. Kerala	49.20	450.84	0.00	500.03	205.77	294.26	57.88	236.38
11. Madhya Pradesh	2881.32	761.74	-2.51	3640.55	120.53	3520.02	1665.16	1854.85
12. Maharashtra	3086.79	346.33	-7.16	3425.95	355.10	3070.85	3177.54	-106.69
13. Meghalaya	0.06	16.56	13.11	29.72	9.50	20.22	-21.43	41.65
14. Orissa	65.80	356.96	0.00	422.75	0.00	422.75	-53.17	475.93
15. Punjab	1779.26	207.08	42.07	2028.41	0.00	2028.41	373.30	1655.12
16. Rajasthan(Transco.)	1560.81	383.28	21.65	1965.74	1196.45	769.29	584.64	184.65
17. Tamil Nadu	1732.95	395.36	23.47	2151.78	1076.05	1075.73	1316.15	-240.41
18. UP(Power corp.)	1925.58	1079.00	112.73	3117.31	1838.90	1278.41	899.40	379.01
19. West Benga	330.13	481.41	-0.32	811.22	49.17	762.05	-345.80	1107.85
Total :	22473.13	6332.48	455.88	29261.49	10351.55	18909.94	8309.99	10599.95

Annexure-4.38d

Uncovered Subsidy for 1999-00

(Rs. Crore)

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the	Net Sub-State	Surplus from sidy	Uncovered Subsidy Other Users
1. Andhra Pradesh	3051.11	836.36	2.29	3889.76	3064.42	825.34	289.34	536.00
2. Assam	9.52	172.07	0.00	181.59	0.00	181.59	-45.49	227.08
3. Bihar	536.75	264.86	26.72	828.34	0.00	828.34	-183.68	1012.01
4. Delhi(DVB)	0.00	0.00	0.00	0.00	0.00	0.00	-581.74	581.74
5. Gujarat	4446.48	290.14	11.98	4748.59	1277.00	3471.59	550.64	2920.95
6. Haryana	1399.60	212.96	0.00	1612.56	412.00	1200.56	132.89	1067.67
7. Himachal Pradesh	3.38	95.74	36.06	135.18	0.00	135.18	-94.50	229.68
8. Jammu & Kashmir	20.21	363.26	0.00	383.47	0.00	383.47	-410.30	793.76
9. Karnataka	1565.07	285.71	0.00	1850.78	1050.58	800.20	627.33	172.87
10. Kerala	64.96	721.53	0.00	786.49	464.72	321.77	55.34	266.43
11. Madhya Pradesh	2954.47	656.31	0.99	3611.76	433.12	3178.64	1714.05	1464.59
12. Maharashtra	2604.33	763.81	24.97	3393.11	2084.19	1308.92	1344.73	-35.81
13. Meghalaya	0.05	16.82	13.16	30.03	9.30	20.73	-23.43	44.17
14. Orissa	13.03	-3.26	-24.24	-14.46	0.00	-14.46	-119.96	105.49
15. Punjab	2141.40	256.29	34.57	2432.25	403.68	2028.57	304.07	1724.51
16. Rajasthan(Transco.)	1984.23	505.19	76.94	2566.36	1766.10	800.26	646.81	153.46
17. Tamil Nadu	2105.55	601.09	31.63	2738.27	250.00	2488.27	1176.77	1311.50
18. UP(Power corp.)	1322.42	1621.88	139.83	3084.12	0.00	3084.12	126.39	2957.73
19. West Benga	384.18	460.35	-1.33	843.20	49.42	793.78	-245.48	1039.26
Total :	24650.01	8121.11	373.56	33144.68	11264.53	21880.15	5263.78	16616.37

Annexure-4.38e

Uncovered Subsidy for 2000-2001

(Rs. Crore)

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the	Net Sub-State	Surplus from sidy	Uncovered Subsidy Other Users
1. Andhra Pradesh	3684.76	1177.84	0.00	4862.60	1626.25	3236.35	822.46	2413.89
2. Assam	13.96	239.74	0.00	253.69	0.00	253.69	-140.08	393.77
3. Bihar	586.04	301.39	31.48	918.91	0.00	918.91	-188.61	1107.52
4. Delhi(DVB)	48.41	1152.49	0.00	1200.91	0.00	1200.91	-630.20	1831.11
5. Gujarat	4576.54	348.01	16.05	4940.61	1316.00	3624.61	562.25	3062.36
6. Haryana	1896.07	340.57	0.00	2236.64	412.00	1824.64	63.29	1761.35
7. Himachal Pradesh	3.39	88.30	2.08	93.77	0.00	93.77	-23.29	117.06
8. Jammu & Kashmir	30.07	443.33	0.00	473.39	0.00	473.39	-517.55	990.94
9. Karnataka	1898.66	521.41	0.00	2420.07	1751.15	668.92	547.38	121.55
10. Kerala	96.65	1098.07	0.00	1194.72	781.00	413.72	-24.26	437.98
11. Madhya Pradesh	3133.53	586.03	1.01	3720.56	464.43	3256.13	1903.48	1352.65
12. Maharashtra	2585.64	531.53	35.22	3152.39	0.00	3152.39	1168.60	1983.79
13. Meghalaya	0.05	13.72	17.94	31.71	10.50	21.21	-13.79	35.00
14. Orissa	N.A.	N.A.	N.A.	NA	4.00	NA	N.A.	NA
15. Punjab	2251.16	256.95	17.83	2525.94	0.00	2525.94	361.21	2164.73
16. Rajasthan(Transco.)	2055.77	467.97	44.38	2568.11	0.00	2568.11	480.60	2087.51
17. Tamil Nadu	2442.92	649.86	35.30	3128.07	250.00	2878.07	1571.19	1306.88
18. UP(Power corp.)	1257.17	1291.24	182.34	2730.76	800.00	1930.76	136.76	1794.00
19. West Benga	389.54	527.63	1.18	918.35	50.00	868.35	-288.02	1156.37
Total :	26950.34	10036.07	384.80	37331.05	7465.33	29909.88	5791.43	24118.45

Annexure-4.38 (f)

Uncovered Subsidy for 2001-02

(Rs. Crore)

SEBs	Subsidy Agri.	Subsidy Domestic	Subsidy Interstate	Gross Subsidy	Subvention from the	Net Sub-State	Surplus from sidy	Uncovered Subsidy Other Users
1. Andhra Pradesh	4176.05	1249.24	0.00	5425.28	1626.25	3799.03	786.76	3012.28
2. Assam	15.93	270.04	0.00	285.97	0.00	285.97	-100.10	386.07
3. Bihar	649.00	329.19	33.74	1011.93	0.00	1011.93	-191.53	1203.46
4. Delhi(DVB)	54.13	1264.72	0.00	1318.85	0.00	1318.85	-436.03	1754.88
5. Gujarat	4555.43	347.96	16.17	4919.56	1356.00	3563.56	914.55	2649.01
6. Haryana	2010.23	331.15	0.00	2341.37	412.00	1929.37	157.73	1771.64
7. Himachal Pradesh	3.71	91.75	-15.15	80.31	0.00	80.31	4.73	75.58
8. Jammu & Kashmir	33.05	460.18	0.00	493.23	0.00	493.23	-648.49	1141.72
9. Karnataka	2628.82	408.46	0.00	3037.28	2426.49	610.79	520.98	89.81
10. Kerala	145.65	1517.24	0.00	1662.88	909.00	753.88	219.22	534.66
11. Madhya Pradesh	3361.44	649.77	1.21	4012.42	498.88	3513.54	1872.40	1641.14
12. Maharashtra	3278.67	1070.16	68.28	4417.11	0.00	4417.11	298.09	4119.02
13. Meghalaya	0.07	17.83	7.91	25.81	11.00	14.81	-24.48	39.29
14. Orissa	N.A.	N.A.	-15.45	NA	0.00	NA	N.A.	NA
15. Punjab	2338.50	292.49	21.67	2652.66	0.00	2652.66	331.45	2321.21
16. Rajasthan(Transco.)	2341.16	579.61	0.00	2920.77	0.00	2920.77	234.40	2686.36
17. Tamil Nadu	3139.12	883.94	45.83	4068.90	250.00	3818.90	1437.77	2381.13
18. UP(Power corp.)	1325.94	1927.78	194.38	3448.10	800.00	2648.10	684.80	1963.31
19. West Benga	404.87	547.02	1.22	953.11	50.00	903.11	-303.24	1206.35
Total :	30461.78	12238.51	359.81	43060.10	8339.62	34735.93	5759.01	28976.92

Annexure 4.39

**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 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	6.10	10.50	38.80	60.80	36.94	43.83	73.84	79.64	67.22	70.02
2. Assam	111.00	101.40	85.70	74.90	70.22	111.84	73.34	40.83	58.51	46.66
3. Bihar	56.90	36.10	50.60	41.20	56.89	57.59	72.55	56.28	55.75	54.02
4. Delhi(DVB)	22.40	NA	NA	0.00	NA	NA	27.78	24.38	67.37	57.04
5. Gujarat	46.10	30.50	34.00	37.20	27.07	34.49	45.68	75.48	64.79	50.42
6. Haryana	85.30	98.50	62.60	55.80	55.03	56.59	50.00	77.48	96.58	82.77
7. Himachal Pradesh	13.00	33.80	8.90	-6.10	8.89	11.20	21.02	40.75	17.68	9.65
8. Jammu & Kashmir	348.40	504.80	874.10	657.00	826.47	700.51	834.33	381.58	440.42	456.69
9. Karnataka	3.70	5.00	15.20	32.90	33.18	19.07	38.23	37.12	49.91	52.38
10. Kerala	18.10	19.80	25.60	37.40	68.68	57.31	37.00	45.04	60.23	54.16
11. Madhya Pradesh	19.00	24.00	29.00	26.10	22.49	35.86	41.85	33.96	29.20	33.02
12. Maharashtra	1.50	1.10	0.60	9.60	3.94	3.24	2.49	19.52	17.60	32.41
13. Meghalaya	24.20	6.90	40.50	37.60	21.01	39.29	76.46	66.94	46.59	45.39
14. Orissa	28.00	40.40	24.00	29.50	38.73	36.71	32.65	6.52	N.A.	N.A.
15. Punjab	71.70	61.80	49.90	43.40	36.69	38.0	50.05	59.92	54.54	54.63
16. Rajasthan(Transco.)	31.50	42.00	47.40	47.60	38.27	33.53	41.64	50.70	52.46	66.35
17. Tamil Nadu	16.10	12.80	1.20	3.00	7.02	6.93	14.95	25.16	20.88	30.48
18. UP(Power corp.)	41.60	51.50	45.00	39.20	55.47	47.65	47.65	53.37	39.64	34.62
19. West Bengal	39.90	27.60	35.70	27.40	38.81	37.09	63.41	52.04	53.94	46.53
Average	25.60	27.00	28.20	29.10	45.84	28.23	38.07	45.42	44.66	46.22

Annexure 4.40

**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 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	42.70	47.60	69.10	84.00	83.82	61.47	80.73	86.04	80.91	81.90
2. Assam	34.00	45.90	38.20	27.70	30.61	47.06	42.17	32.65	37.70	34.56
3. Bihar	46.90	34.00	39.80	36.40	36.39	44.20	50.53	46.06	46.26	45.42
4. Delhi(DVB)	29.10	NA	NA	NA	NA	NA	5.46	0.00	44.19	42.86
5. Gujarat	63.30	52.20	50.30	54.50	54.56	54.20	62.89	85.38	73.11	61.93
6. Haryana	88.90	104.50	71.40	68.90	63.62	64.52	60.95	84.44	99.39	88.74
7. Himachal Pradesh	8.60	21.40	11.00	4.90	3.55	14.45	21.59	23.99	14.16	10.25
8. Jammu & Kashmir	137.30	208.00	344.50	296.80	296.66	311.47	367.68	184.34	210.40	197.29
9. Karnataka	42.90	44.90	54.20	67.30	67.30	59.36	60.54	56.15	64.50	63.22
10. Kerala	17.80	19.50	22.60	34.80	34.82	51.09	41.84	48.45	59.04	62.39
11. Madhya Pradesh	34.50	42.80	53.00	55.10	55.45	67.60	77.13	64.63	59.79	61.92
12. Maharashtra	27.90	25.40	29.90	36.60	36.47	36.34	34.29	32.33	27.96	34.76
13. Meghalaya	24.90	16.90	28.00	29.90	9.97	28.55	44.42	37.60	32.47	23.30
14. Orissa	24.00	28.40	16.80	21.30	19.14	28.98	29.00	-0.89	NA	NA
15. Punjab	75.10	65.80	52.10	47.40	46.81	NA	61.34	68.48	63.65	62.43
16. Rajasthan(Transco.)	39.00	47.00	49.80	54.30	52.96	49.35	59.26	67.79	64.54	72.14
17. Tamil Nadu	38.70	35.30	32.30	32.80	32.87	33.18	38.51	44.12	41.95	47.14
18. UP(Power corp.)	59.00	66.30	60.30	55.50	55.78	66.98	66.98	55.65	41.73	43.19
19. West Bengal	27.80	27.90	34.70	31.70	30.49	35.43	44.46	40.31	41.06	35.30
Average	43.20	44.00	45.60	46.20	45.35	45.88	53.17	54.00	52.87	53.36

Annexure 4.41

Surplus Generated by Sales to other Sectors

(Rs.crore)

SEBs	1992-93 Actual	1993-94 Actual	1994-95 Actual	1995-96 Actual	1996-97 Actual	1997-98 Actual	1998-99 Actual	1999-2000 Provi.	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	668.0	781.5	649.7	532.8	638.9	704.1	286.9	289.3	822.5	786.8
2. Assam	-148.0	-115.4	-129.3	-172.9	-134.9	-262.4	-142.0	-45.5	-140.1	-100.1
3. Bihar	-66.0	-18.7	-106.1	-55.7	-206.0	-197.1	-312.2	-183.7	-188.6	-191.5
4. Delhi(DVB)	71.0	NA	NA	NA	NA	-218.6	-481.9	-581.7	-630.2	-436.0
5. Gujarat	319.0	538.6	450.7	565.9	887.7	971.7	943.6	550.6	562.2	914.6
6. Haryana	23.0	42.2	80.0	151.5	126.7	131.6	202.9	132.9	63.3	157.7
7. Himachal Pradesh	-6.7	-22.1	5.2	32.2	-5.6	14.1	2.8	-94.5	-23.3	4.7
8. Jammu & Kashmir	-118.0	-165.0	-210.2	-199.5	-285.9	-367.1	-466.8	-410.3	-517.5	-648.5
9. Karnataka	475.0	598.7	651.6	626.8	706.6	1067.3	623.1	627.3	547.4	521.0
10. Kerala	-1.5	-1.6	-18.1	-17.9	-71.3	-59.4	57.9	55.3	-24.3	219.2
11. Madhya Pradesh	310.0	445.3	651.9	962.3	1412.9	1330.6	1665.2	1714.1	1903.5	1872.4
12. Maharashtra	1135.0	1262.4	1781.4	1900.7	2590.1	3033.2	3177.5	1344.7	1168.6	298.1
13. Meghalaya	0.3	5.2	-4.7	-4.2	-5.2	-7.6	-21.4	-23.4	-13.8	-24.5
14. Orissa	-166.7	-68.8	-51.8	-75.0	-121.4	-105.0	-53.2	-120.0	N.A.	N.A.
15. Punjab	35.0	55.6	37.5	82.3	291.5	260.9	373.3	304.1	361.2	331.4
16. Rajasthan(Transco.)	87.0	65.1	39.1	133.1	318.1	469.1	584.6	646.8	480.6	234.4
17. Tamil Nadu	461.0	587.6	1079.9	1213.2	1167.3	1376.3	1316.1	1176.8	1571.2	1437.8
18. UP(Power corp.)	920.0	394.8	483.9	600.7	517.7	899.4	899.4	126.4	136.8	684.8
19. West Bengal	-86.4	3.0	-11.5	57.5	-52.1	-30.1	-345.8	-245.5	-288.0	-303.2
Total :	3911.0	4522.5	5379.2	6333.7	7775.1	9010.9	8310.0	5263.8	5791.4	5759.0

* Include mainly commercial & industrial sectors.

Annexure 4.42

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)	2001-02 (AP)
1. Andhra Pradesh	52.60	0.00	0.00	257.80	619.80	1012.27	100.19	400.23	759.75	0.00
2. Assam	57.30	0.00	67.00	147.20	0.00	0.00	92.71	0.00	0.00	0.00
3. Bihar	33.40	156.80	33.40	NA	0.00	0.00	0.00	0.00	0.00	0.00
4. Delhi(DVB)	NA	NA	NA	NA	0.00	0.00	0.00	0.00	237.00	0.00
5. Gujarat	NA	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
6. Haryana	55.30	90.00	222.40	195.10	406.10	397.38	0.00	0.00	0.00	0.00
7. Himachal Pradesh	25.60	10.10	17.60	12.90	54.26	0.00	35.00	0.00	56.00	25.00
8. Jammu & Kashmir	NA	NA	NA	NA	0.00	0.00	0.00	0.00	0.00	0.00
9. Karnataka	216.50	116.70	NA	NA	401.93	204.88	636.00	220.00	141.00	0.00
10. Kerala	NA	50.50	32.50	45.60	19.50	243.50	56.93	342.22	249.84	428.06
11. Madhya Pradesh	71.90	62.60	NA	280.20	359.19	0.00	37.09	0.00	0.00	0.00
12. Maharashtra	726.60	NA	228.50	NA	1281.79	1317.70	448.09	1200.00	874.87	0.00
13. Meghalaya	10.60	NA	2.80	4.20	9.35	12.17	0.01	3.82	15.39	12.78
14. Orissa	84.40	54.50	75.20	115.00	290.80	79.09	31.08	0.00	0.00	0.00
15. Punjab	139.70	76.70	106.20	4.00	179.39	130.05	269.19	33.12	273.02	0.00
16. Rajasthan(Transco.)	50.50	NA	192.90	89.40	111.65	111.41	148.03	197.40	0.00	0.00
17. Tamil Nadu	231.70	325.70	382.00	450.30	65.00	586.00	165.38	0.00	668.47	488.47
18. UP(Power corp.)	634.70	83.10	273.10	362.40	194.42	775.38	775.38	214.27	872.96	0.00
19. West Bengal	NA	37.90	26.10	0.20	87.26	0.00	27.67	0.00	0.00	0.00

Annexure-4.43

Net Internal Resources

(Rs. Crore)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1 Andhra Pradesh	103.0	38.1	-71.4	-276.5	-158.6	-1849.2	-1314.1	-355.2	-981.6	-984.7
2 Assam	-71.8	-42.6	8.6	-12.3	-24.5	0.0	-0.8	-31.7	-58.7	-279.9
3 Bihar	-201.6	-415.1	-484.5	-538.5	-573.4	-769.1	-1067.1	-1027.8	-532.2	-527.9
4 Delhi	-152.8	NA	NA	-486.4	-518.3	-635.4	-976.8	-1018.8	-943.5	-961.2
5 Gujarat	-216.0	-226.0	358.0	379.0	334.0	409.0	70.0	-2041.0	-2123.0	-1443.0
6 Haryana	-303.1	-407.8	-327.4	67.6	-651.9	-404.5	-475.4	-412.6	-794.6	-645.9
7 Himachal Pradesh	-6.8	-21.1	-18.3	-17.7	11.1	4.6	-37.6	-138.2	-77.1	-27.6
8 Jammu & Kashmir	-207.4	272.5	-332.8	-296.2	-426.9	-560.4	-719.7	-675.3	-857.9	-1010.0
9 Karnataka	384.8	-28.5	103.6	259.4	117.8	318.4	163.9	347.2	135.0	286.0
10 Kerala	117.7	24.9	-29.4	228.9	-97.1	-314.4	-467.7	-141.2	-784.8	-1038.0
11 Madhya Pradesh	15.1	-318.5	5.6	173.2	-92.8	-1464.6	-1869.3	-1750.6	-1653.6	-1937.5
12 Maharashtra	252.4	208.2	274.9	683.3	419.2	-44.5	-267.6	19.6	-1934.2	-4009.4
13 Meghalaya	1.6	18.5	4.3	-0.7	13.0	4.2	-15.2	-14.0	-3.0	-8.4
14 Orissa	41.1	74.0	74.7	72.1	-252.6	-265.0	-1006.6	-1056.1	-1108.6	-1299.5
15 Punjab	-133.1	-56.3	-23.3	104.9	35.6	-303.5	-419.9	-909.4	-472.1	-511.6
16 Rajasthan(Transco.)	62.2	-172.5	-352.9	382.0	-537.2	-1124.6	-838.9	-1376.7	-924.7	-1568.8
Rajasthan(Genco.)									-222.2	-284.8
17 Tamil Nadu	253.6	443.5	389.6	529.0	329.3	614.1	657.8	-735.4	-1163.1	-2147.7
18 UP(Power corp.)	5.0	99.7	-108.8	202.2	79.0	310.7	310.7	-1611.4	-546.0	-208.5
UP(TPG Corp.)								0.0	0.0	0.0
UP(JVNL)								0.0	0.0	0.0
19 West Bengal	-105.4	-52.5	-126.6	-59.5	-96.2	-135.1	-680.1	-387.9	-574.8	-495.6
Total	-161.5	-561.5	-656.1	1393.6	-2090.7	-6209.0	-8954.4	-13316.3	-15620.6	-19103.9

Annexure 4.44

**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 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	-0.20	-0.60	-0.80	0.10	-2.06	-33.95	-4.91	-2.02	-33.82	-43.31
2. Assam	-43.30	-47.30	-25.70	-32.10	-27.51	-42.53	-31.89	-22.15	-37.68	-36.66
3. Bihar	-20.00	-12.70	-19.00	-12.90	-27.57	-32.57	-42.76	-39.08	-50.43	-59.44
4. Delhi(DVB)	-26.20	NA	NA	-29.90	-27.75	-29.96	-74.96	-79.61	-47.40	-44.42
5. Gujarat	3.20	2.70	2.70	2.70	2.67	2.60	-7.44	-50.22	-51.60	-38.81
6. Haryana	-23.80	-27.50	-0.80	2.60	0.41	-2.02	-20.89	-36.81	-67.51	-62.05
7. Himachal Pradesh	0.50	-14.90	-2.50	2.60	-3.77	-5.21	-12.12	-26.13	-11.15	-4.44
8. Jammu & Kashmir	-39.10	-86.10	-51.70	-48.20	-56.69	-59.87	-66.97	-56.23	-69.99	-75.48
9. Karnataka	3.30	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
10. Kerala	-11.40	-11.40	-16.70	-17.10	-16.22	-17.05	-10.26	-9.05	-13.80	-16.18
11. Madhya Pradesh	-3.40	1.00	-8.60	-0.20	-3.87	-19.89	-65.02	-69.54	-59.84	-66.09
12. Maharashtra	3.10	3.10	4.10	2.90	2.16	3.88	6.17	6.75	-13.85	-31.72
13. Meghalaya	-1.80	4.40	-3.60	-5.70	-3.27	-8.44	-18.91	-20.44	-16.82	-17.20
14. Orissa	2.60	2.10	1.90	2.50	-18.57	-20.00	-28.31	-16.58	-18.33	-17.38
15. Punjab	-19.90	-20.90	-19.40	-21.10	-18.18	-31.99	-45.85	-42.72	-36.26	-18.16
16. Rajasthan(Transco.)	1.00	0.40	0.00	3.00	2.44	2.34	-4.58	-3.41	14.96	-73.80
17. Tamil Nadu	3.20	7.30	9.40	8.40	6.93	4.56	5.30	-17.52	-16.64	-29.62
18. UP(Power corp.)	-16.70	-17.80	-12.20	3.20	-14.09	-13.21	-13.21	-24.25	-19.05	-15.77
19. West Bengal	-35.30	-20.30	-30.70	-41.80	-36.40	-37.05	-87.98	-61.77	-50.47	-48.07
Average :	-7.60	-6.60	-5.70	-2.20	-8.09	-12.48	-17.22	-24.68	-27.54	-33.03

Note: Estimated on the basis of net fixed assets at the beginning of the year.

Annexure 4.45

**Rate of Return on Capital
(Without Subsidy)**

(%)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	-0.20	-0.60	-22.30	-28.80	-21.80	-33.95	-100.94	-119.40	-92.80	-102.29
2. Assam	-43.30	-47.30	-25.70	-32.10	-27.51	-42.53	-31.89	-22.15	-37.68	-36.66
3. Bihar	-20.00	-12.70	-19.00	-12.90	-27.57	-32.57	-42.76	-39.08	-50.43	-59.44
4. Delhi(DVB)	-26.20	NA	NA	-29.90	-27.75	-29.96	-74.96	-79.61	-47.40	-44.42
5. Gujarat	-16.50	-14.60	-14.30	-24.90	-22.89	-29.79	-41.41	-75.87	-77.68	-63.46
6. Haryana	-26.10	-31.20	-27.90	-31.80	-38.97	-47.79	-43.25	-54.96	-85.47	-78.68
7. Himachal Pradesh	0.50	-14.90	-2.50	2.60	-3.77	-5.21	-12.12	-26.13	-11.15	-4.44
8. Jammu & Kashmir	-39.10	-50.10	-51.70	-48.20	-56.69	-59.87	-66.97	-56.23	-69.99	-75.48
9. Karnataka	-2.00	-0.20	-11.40	-29.40	-36.16	-16.50	-37.93	-38.63	-65.86	-81.25
10. Kerala	-11.40	-11.40	-17.90	-24.10	-19.11	-17.05	-20.55	-32.29	-44.78	-49.26
11. Madhya Pradesh	-14.60	-9.60	-13.50	-14.30	-10.99	-25.90	-68.12	-80.63	-69.77	-76.45
12. Maharashtra	3.10	3.10	4.10	-5.30	-1.20	-0.14	1.92	-16.52	-13.85	-31.72
13. Meghalaya	-7.90	-4.00	-6.90	-9.60	-7.30	-12.86	-23.32	-24.84	-22.02	-22.16
14. Orissa	-8.70	-13.50	-10.20	-21.50	-19.15	-20.28	-28.31	-16.58	-18.68	-17.38
15. Punjab	-19.90	-20.90	-19.40	-21.10	-18.18	-31.99	-45.85	-52.81	-36.26	-18.16
16. Rajasthan(Transco.)	-11.40	-17.90	-19.10	-16.00	-19.20	-22.88	-45.35	-48.71	14.96	-73.80
17. Tamil Nadu	-8.80	-9.70	-0.10	-1.90	-5.40	-4.94	-11.74	-21.19	-20.12	-32.90
18. UP(Power corp.)	-16.70	-17.80	-12.20	-9.60	-26.14	-26.31	-26.31	-24.25	-27.84	-22.46
19. West Bengal	-35.30	-29.70	-42.20	-56.10	-42.24	-45.34	-92.14	-65.62	-52.97	-50.39
Average :	-12.70	-12.30	-13.10	-16.40	-19.57	-22.94	-34.19	-43.10	-39.10	-44.13

Annexure 4.46

**Rate of Return on Capital
(With 50 Paise/Unit for Agriculture)**

(%)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	13.40	9.30	-11.20	-15.74	-12.71	-22.43	-82.21	-99.83	-72.45	-80.45
2. Assam	-43.30	-47.30	-25.70	-31.80	-27.25	-42.40	-31.62	-21.91	-37.44	-36.40
3. Bihar	-15.70	-9.50	-16.10	-9.00	-23.61	-27.69	-37.87	-33.25	-44.60	-52.41
4. Delhi(DVB)	-26.10	NA	NA	-29.90	-27.65	-29.85	-74.65	NA	-47.15	-44.16
5. Gujarat	-6.90	-6.60	-8.10	-12.30	-10.78	-18.05	-29.00	-60.89	-63.31	-49.81
6. Haryana	-18.70	-26.10	-26.90	-20.60	-26.43	-35.78	-30.84	-45.14	-74.20	-67.54
7. Himachal Pradesh	0.60	-14.80	-2.50	2.70	-3.65	-5.13	-12.04	-26.02	-11.04	-4.35
8. Jammu & Kashmir	-37.90	-48.20	-49.90	-46.20	-54.81	-57.88	-64.97	-55.78	-69.49	-74.91
9. Karnataka	23.10	25.20	13.10	-7.90	-16.98	6.89	-22.23	-26.13	-53.17	-67.66
10. Kerala	-10.40	-10.70	-16.90	-22.00	-17.60	-15.59	-19.52	-31.35	-43.97	-48.31
11. Madhya Pradesh	-11.90	-5.40	-6.40	-4.80	-0.84	-14.07	-53.12	-68.32	-58.87	-65.47
12. Maharashtra	8.70	7.10	9.40	3.30	7.81	9.97	11.47	-10.77	-8.46	-26.36
13. Meghalaya	-7.90	-4.00	-6.90	-9.60	-7.27	-12.83	-23.32	-24.83	-22.01	-22.15
14. Orissa	-8.10	-12.80	-10.20	-20.70	-18.74	-19.77	-27.69	-15.62	NA	NA
15. Punjab	-12.20	-15.10	-16.80	-11.50	-8.62	-21.73	-33.10	-42.52	-26.19	-13.60
16. Rajasthan(Transco.)	-8.70	-15.00	-16.20	-7.90	-10.06	-13.97	-35.07	-40.30	23.44	-62.67
17. Tamil Nadu	0.00	-1.30	8.30	6.30	1.62	1.12	-5.75	-15.10	-13.82	-26.23
18. UP(Power corp.)	-13.50	-15.40	-11.50	-5.50	-22.35	-22.94	-22.94	-22.15	-25.11	-20.37
19. West Bengal	-32.20	-27.10	-38.60	-45.30	-34.99	-38.56	-87.04	-60.58	-49.57	-47.09
Average :	-6.60	-6.90	-8.10	-8.50	-12.43	-15.56	-26.38	-35.98	-32.01	-37.63

Annexure 4.47

**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 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	4.3	22.8	981.4	1255.2	938.9	1375.6	2679.4	3117.2	2558.6	2820.3
2. Assam	205.4	197.3	217.1	261.2	244.2	439.1	322.5	213.8	378.9	370.4
3. Bihar	279.6	189.7	318.9	211.4	441.6	494.9	605.1	511.5	669.5	753.5
4. Delhi(DVB)	207.3	NA	NA	578.0	626.4	760.2	1039.0	1103.4	1055.0	1092.4
5. Gujarat	519.0	493.0	551.0	1003.0	952.0	1364.0	2039.1	3778.1	3919.8	3490.8
6. Haryana	403.3	506.9	467.9	553.8	635.0	764.7	704.1	1247.5	1960.4	1949.4
7. Himachal Pradesh	0.0	50.6	9.5	0.0	19.3	33.0	88.1	205.7	92.4	47.9
8. Jammu & Kashmir	224.5	293.2	346.7	363.2	507.2	660.6	834.5	793.3	990.4	1141.1
9. Karnataka	19.4	1.9	164.2	0.0	651.8	321.7	846.9	974.9	1674.9	2340.1
10. Kerala	65.4	75.0	128.1	183.2	208.0	199.0	411.0	645.7	1129.0	1353.7
11. Madhya Pradesh	492.9	377.1	594.2	601.9	463.9	1057.6	2655.0	3150.8	3264.1	3681.8
12. Maharashtra	0.0	0.0	0.0	408.2	92.1	10.8	-160.4	1479.5	1403.6	3527.2
13. Meghalaya	8.4	3.3	14.8	19.9	15.4	26.1	50.2	52.5	44.5	49.2
14. Orissa	85.1	196.1	136.1	230.7	374.9	391.7	538.3	186.8	215.8	230.3
15. Punjab	626.3	693.2	680.6	643.7	603.4	943.3	1354.4	2112.9	1476.7	1633.1
16. Rajasthan(Transco.)	259.5	414.5	490.0	429.9	497.5	639.5	1330.7	1899.0	-614.6	2412.1
17. Tamil Nadu	257.6	301.6	2.3	76.7	256.9	296.4	741.1	1442.1	1446.9	2510.1
18. UP(Power corp.)	807.5	1201.5	1152.1	1136.2	3378.3	3692.0	3692.0	2595.5	2534.0	2687.3
19. West Bengal	257.5	231.2	357.0	321.8	398.2	492.4	1089.2	842.5	1059.4	1086.2
Total :	4723.0	5248.9	6611.9	8277.8	11304.9	13962.7	20860.3	26352.7	25259.1	33176.8

Annexure 4.48

**Additional Revenue Mobilisable from
Achieving 3% 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 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	77.4	142.8	1113.5	1385.8	1068.1	1497.2	2759.1	3195.6	2641.3	2903.0
2. Assam	219.6	209.8	242.4	285.6	270.8	470.0	352.8	242.8	409.1	400.7
3. Bihar	321.0	234.0	369.4	260.6	489.6	540.5	647.6	550.7	709.3	791.5
4. Delhi(DVB)	231.0	NA	NA	636.1	694.1	836.4	1080.5	1145.0	1121.8	1166.2
5. Gujarat	613.0	594.6	667.0	1123.8	1076.8	1501.3	2186.8	3927.5	4071.2	3655.8
6. Haryana	449.7	555.6	518.2	606.0	683.9	812.7	753.0	1315.6	2029.2	2023.7
7. Himachal Pradesh	7.8	60.8	20.7	1.7	34.7	52.0	109.9	229.3	117.2	80.2
8. Jammu & Kashmir	241.7	310.8	366.8	385.7	534.0	693.7	871.9	835.6	1032.9	1186.5
9. Karnataka	48.9	35.8	207.3	0.0	705.8	380.1	913.9	1050.6	1751.2	2426.5
10. Kerala	82.6	94.8	150.4	205.9	240.6	234.1	471.0	705.7	1204.6	1436.1
11. Madhya Pradesh	593.9	495.3	726.6	728.5	590.5	1180.1	2771.9	3268.1	3404.4	3826.2
12. Maharashtra	0.0	0.0	0.0	641.4	323.2	239.0	90.4	1748.2	1707.5	3860.9
13. Meghalaya	15.0	5.8	21.2	26.1	21.7	32.2	56.7	58.9	50.6	55.9
14. Orissa	115.0	239.6	176.0	262.9	433.6	449.7	595.3	220.6	250.4	270.1
15. Punjab	720.6	792.6	786.0	735.2	703.0	1031.7	1443.0	2232.9	1598.8	1903.0
16. Rajasthan(Transco.)	327.8	484.0	567.0	510.7	575.3	723.4	1418.8	2015.9	-491.4	2510.2
17. Tamil Nadu	345.4	394.9	113.3	197.6	399.5	476.6	930.6	1646.3	1662.6	2739.0
18. UP(Power corp.)	952.6	1404.4	1435.0	1490.5	3766.0	4112.9	4112.9	2916.6	2807.1	3046.2
19. West Bengal	279.4	254.6	382.4	339.0	426.5	525.0	1124.6	881.0	1119.4	1150.9
Total :	5642.5	6310.2	7863.2	9822.9	13037.8	15788.6	22690.8	28186.8	27197.2	35432.5

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

Annexure 4.49

**Additional Revenue Mobilisable from
Introducing 50P/U for Agriculture**

(Rs.crore)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	330.7	393.4	488.2	538.0	287.2	316.3	338.6	354.2	392.8	433.6
2. Assam	0.0	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	53.5	55.9	56.7	65.4
4. Delhi(DVB)	0.8	NA	NA	NA	NA	0.0	0.0	0.0	0.0	0.0
5. Gujarat	303.6	268.2	236.9	314.1	302.1	344.2	403.3	522.0	159.6	0.0
6. Haryana	113.9	83.1	16.4	0.0	0.0	0.0	0.0	64.5	67.1	12.7
7. Himachal Pradesh	0.3	0.2	0.0	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	0.0
9. Karnataka	246.7	286.8	351.8	355.6	306.1	350.5	185.2	116.5	125.8	87.7
10. Kerala	0.0	5.0	7.1	8.5	7.6	0.0	0.0	0.0	0.0	0.0
11. Madhya Pradesh	91.8	165.9	312.6	365.6	370.1	431.8	529.3	411.7	436.6	452.8
12. Maharashtra	289.8	241.1	364.2	446.6	380.6	439.0	319.4	43.8	0.0	0.0
13. Meghalaya	0.0	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	0.0	NA	NA
15. Punjab	242.2	193.5	92.7	67.5	136.7	302.5	376.6	411.7	410.0	410.0
16. Rajasthan(Transco.)	61.6	67.6	74.8	99.0	89.0	76.8	147.3	107.8	26.1	26.7
17. Tamil Nadu	258.0	262.5	311.4	331.6	323.7	352.1	368.7	404.6	441.4	495.2
18. UP(Power corp.)	156.5	161.5	65.5	4.9	73.7	3.3	3.3	0.0	0.0	0.0
19. West Bengal	22.5	19.6	30.7	34.7	44.5	39.3	28.5	18.1	0.0	0.0
Total :	2191.5	2217.3	2412.2	2621.1	2380.4	2728.5	2753.7	2510.9	2116.1	1984.0

Annexure 4.50

Tariff increase required to Achieve break even (0 %) ROR

(Paise/Kwh)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	0.20	1.10	42.50	59.00	57.58	73.04	122.37	138.67	131.87	138.26
2. Assam	129.20	119.00	128.60	152.70	131.71	241.36	190.65	125.53	205.52	187.41
3. Bihar	49.80	30.90	49.90	73.60	105.35	115.50	145.56	130.42	140.25	132.26
4. Delhi(DVB)	25.90	NA	NA	97.10	101.14	105.36	191.05	203.43	177.79	169.73
5. Gujarat	28.10	24.10	25.60	49.20	50.94	63.59	87.07	134.75	139.49	122.40
6. Haryana	46.80	61.00	57.00	75.90	85.43	106.04	99.73	152.43	198.33	186.53
7. Himachal Pradesh	0.00	30.40	4.50	1.40	11.68	16.72	33.93	73.66	35.82	20.71
8. Jammu & Kashmir	147.70	183.30	218.90	210.40	255.11	256.41	290.50	300.93	352.34	338.26
9. Karnataka	1.50	0.10	10.30	38.20	46.71	28.74	67.07	75.52	107.37	128.89
10. Kerala	11.20	12.00	18.30	41.60	65.67	71.41	48.41	74.66	113.92	122.04
11. Madhya Pradesh	29.40	20.30	28.40	37.30	39.69	61.10	74.10	76.30	71.06	80.66
12. Maharashtra	0.00	0.00	0.00	16.20	7.84	6.77	7.65	48.79	47.69	87.52
13. Meghalaya	0.00	5.80	39.00	40.20	34.10	50.73	98.73	90.80	75.01	82.73
14. Orissa	15.70	32.70	28.30	52.10	87.61	92.70	92.09	9.92	12.97	13.92
15. Punjab	43.80	45.60	43.10	54.40	50.28	69.30	78.80	97.46	97.24	101.08
16. Rajasthan(Transco.)	23.50	36.10	39.90	68.70	65.83	65.86	81.41	112.24	116.35	146.85
17. Tamil Nadu	13.50	14.90	0.10	5.00	12.13	13.49	29.99	51.31	46.77	72.38
18. UP(Power corp.)	36.20	50.50	44.60	56.20	79.30	81.75	81.75	124.93	102.49	98.65
19. West Bengal	41.60	32.40	44.60	40.70	57.36	67.73	116.56	113.87	120.64	119.65
Average :	20.30	24.00	28.00	44.60	50.04	57.78	75.10	97.51	100.27	110.03

Annexure 4.51

Tariff increase required to Achieve 3% rate of return

(Paise/Kwh)

SEBs	1992- 93 Actual	1993- 94 Actual	1994- 95 Actual	1995- 96 Actual	1996- 97 Actual	1997- 98 Actual	1998- 99 Actual	1999- 2000 Provi.	2000- 01 (RE)	2001- 02 (AP)
1. Andhra Pradesh	4.0	6.7	48.2	64.5	63.7	78.1	125.5	141.7	134.8	141.0
2. Assam	138.1	126.5	143.6	166.3	145.3	257.9	207.9	141.5	221.3	202.1
3. Bihar	57.3	44.7	50.5	81.2	112.4	121.7	151.6	135.5	145.3	136.4
4. Delhi(DVB)	28.9	NA	NA	105.7	111.0	114.9	196.1	208.4	185.1	176.9
5. Gujarat	33.1	29.1	31.0	54.1	55.6	68.7	92.2	139.5	144.3	127.5
6. Haryana	52.1	66.8	63.2	81.9	90.8	111.5	105.0	159.5	204.6	192.9
7. Himachal Pradesh	4.7	36.5	9.9	6.0	17.3	23.3	41.1	81.2	43.4	29.6
8. Jammu & Kashmir	159.0	194.2	218.9	223.5	268.6	269.2	303.5	317.0	367.4	351.7
9. Karnataka	3.8	2.6	13.0	41.4	50.3	32.1	71.3	80.2	111.8	133.3
10. Kerala	14.1	15.2	21.4	44.7	70.3	76.0	55.0	80.8	121.0	129.0
11. Madhya Pradesh	35.4	26.7	34.7	42.8	45.0	66.1	78.5	81.3	76.5	86.1
12. Maharashtra	0.0	0.0	0.0	21.8	13.3	12.0	13.1	55.2	55.0	94.6
13. Meghalaya	27.3	10.2	56.0	52.4	47.8	61.8	111.2	101.6	85.0	93.7
14. Orissa	21.1	40.0	36.6	58.3	99.6	103.8	103.1	13.1	16.2	17.4
15. Punjab	50.4	52.1	49.7	60.0	55.9	74.0	83.0	103.0	102.7	112.8
16. Rajasthan(Transco.)	29.7	42.1	46.2	74.6	71.4	71.3	86.8	119.2	123.3	152.2
17. Tamil Nadu	18.1	19.5	4.9	9.9	17.7	20.2	36.8	58.0	53.2	78.7
18. UP(Power corp.)	42.7	59.0	55.6	69.3	93.6	97.3	97.3	138.5	113.3	111.5
19. West Bengal	45.1	35.7	47.8	42.6	60.3	71.1	120.1	117.9	126.6	125.8
Average :	25.9	29.0	33.1	50.7	56.6	64.3	81.4	103.7	106.5	116.7

Annexure 4.52

Revenue Arrears Receivable by SEBs

(Rs. Crore)

SEBs	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00
1. Andhra Pradesh	456.9	456.8	566.7	566.7	400.1	677.7
2. Assam	130.4	181.2	235.2	235.2	320.7	309.6
3. Bihar	1325.7	1802.9	2317.6	2317.6	3477.2	4127.9
4. Delhi(DVB)	NA	2192.0	NA	NA	0.0	0.0
5. Gujarat	720.0	849.0	1031.0	1031.0	1449.0	1565.0
6. Haryana	268.7	378.8	514.4	514.4	460.1	200.0
7. Himachal Pradesh	54.0	46.2	59.5	59.5	99.6	122.6
8. Jammu & Kashmir	112.4	126.1	140.5	140.5	217.0	313.0
9. Karnataka	592.0	671.3	760.1	760.1	980.2	1025.8
10. Kerala	170.5	185.6	160.4	199.2	239.7	345.0
11. Madhya Pradesh	577.5	733.2	1045.2	1045.2	1694.6	2042.2
12. Maharashtra	1641.0	1840.0	2219.0	2219.0	3482.0	4280.0
13. Meghalaya	NA	66.7	79.9	79.9	120.0	156.0
14. Orissa	NA	NA	373.3	373.3	946.8	681.8
15. Punjab	182.2	203.4	247.5	247.5	440.2	475.3
16. Rajasthan(Transco.)	254.9	342.7	455.8	452.7	461.4	521.5
17. Tamil Nadu	102.9	84.6	94.0	94.0	462.8	481.0
18. UP(Power corp.)	1785.0	2556.9	3005.2	3005.2	3737.9	5699.4
19. West Bengal	640.0	784.0	828.5	828.5	1393.2	1749.3
Total :	9014.1	13501.4	14524.9	14169.3	20382.4	24773.1

Annexure 4.53

State Electricity Duty Collection

(Rs. crore)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	42.1	51.5	65.2	59.7	68.1	73.7	75.0	75.4	98.6	101.7
2. Assam	2.1	2.2	2.3	3.6	4.1	3.9	4.1	4.2	4.4	4.6
3. Bihar	10.8	18.8	15.9	16.7	16.8	16.8	0.0	0.0	0.0	0.0
4. Delhi(DVB)	34.9	62.2	66.8	70.1	NA	48.8	94.0	105.9	120.9	136.6
5. Gujarat	315.0	401.0	445.0	497.0	641.0	770.0	880.0	934.0	1076.0	1266.0
6. Haryana	47.7	44.7	34.9	37.4	36.0	37.1	11.7	30.5	37.7	46.8
7. Himachal Pradesh	5.7	5.0	6.7	8.4	15.5	16.3	17.7	20.1	24.0	25.0
8. Jammu & Kashmir	4.6	2.6	6.0	6.2	6.7	9.8	11.7	39.7	42.8	51.7
9. Karnataka	59.7	61.2	54.4	68.7	105.4	131.5	133.3	139.2	164.1	178.6
10. Kerala	42.5	46.0	61.0	65.7	58.0	74.0	88.1	94.5	103.3	114.2
11. Madhya Pradesh	187.9	194.6	203.2	294.9	375.1	343.5	355.3	364.0	396.5	411.4
12. Maharashtra	147.4	153.7	187.6	217.8	254.3	265.4	363.7	416.5	439.5	483.5
13. Meghalaya	0.3	0.3	0.3	0.3	0.9	0.9	0.9	1.0	1.2	1.2
14. Orissa	43.1	42.6	59.8	64.9	68.1	73.0	98.7	0.0	0.0	0.0
15. Punjab	65.3	71.3	85.0	96.1	106.0	112.3	118.1	127.3	135.0	175.0
16. Rajasthan(Transco.)	53.2	56.8	73.3	81.8	84.6	91.7	96.7	184.8	245.3	258.7
17. Tamil Nadu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. UP(Power corp.)	55.7	55.3	57.0	67.2	68.3	105.3	105.3	117.1	160.0	160.0
19. West Bengal	12.7	27.5	33.1	41.1	47.5	53.5	62.8	79.1	75.9	91.6
Total :	1130.8	1297.3	1457.7	1697.6	1956.0	2227.4	2517.0	2733.2	3125.2	3506.6

Annexure 4.54

Incidence of “SED” on sales of Electricity

(Paise/Kwh)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	2.20	2.40	2.80	2.53	3.24	3.08	2.97	2.92	3.47	3.41
2. Assam	1.30	1.30	1.40	2.00	2.08	2.10	2.34	2.32	2.30	2.24
3. Bihar	1.90	3.10	2.50	2.50	2.46	2.29	0.00	0.00	0.00	0.00
4. Delhi(DVB)	4.40	NA	NA	10.50	NA	6.14	11.50	12.59	13.21	13.32
5. Gujarat	17.00	19.60	20.70	20.10	24.01	28.75	30.53	29.96	34.23	38.72
6. Haryana	5.50	5.40	4.30	4.30	3.97	4.18	1.26	3.15	3.44	4.00
7. Himachal Pradesh	3.40	3.00	3.20	3.20	5.68	5.60	5.80	6.43	7.34	6.85
8. Jammu & Kashmir	3.00	1.70	3.60	3.60	3.34	3.80	4.06	15.07	15.20	15.31
9. Karnataka	4.60	4.40	3.40	4.30	6.93	7.48	8.38	8.62	9.50	9.13
10. Kerala	7.30	7.40	8.70	8.90	8.26	9.65	9.65	9.65	9.65	9.65
11. Madhya Pradesh	11.20	10.50	9.70	12.80	15.85	13.96	13.33	15.51	15.51	15.51
12. Maharashtra	4.70	4.40	5.00	5.20	5.95	6.05	7.85	9.92	10.57	10.27
13. Meghalaya	0.70	0.50	0.80	0.60	1.86	1.67	1.80	1.75	1.90	1.97
14. Orissa	7.90	7.10	14.60	12.50	13.96	13.92	19.10	0.00	0.00	0.00
15. Punjab	4.60	4.70	5.40	5.90	5.97	5.97	5.62	5.83	6.03	7.58
16. Rajasthan(Transco.)	4.80	4.90	6.00	6.00	6.01	5.96	5.91	10.93	13.87	14.14
17. Tamil Nadu	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18. UP(Power corp.)	2.50	2.30	2.20	2.50	2.53	3.88	3.88	4.95	6.32	5.71
19. West Bengal	2.10	3.90	4.10	4.60	4.92	5.47	6.32	8.27	7.59	8.73
Average :	5.20	6.30	6.60	6.50	7.37	7.96	8.61	9.25	10.05	10.44

Annexure 4.55

SED as a proportion of Average Tariff

(%)

SEBs	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01 (RE)	2001-02 (AP)
1. Andhra Pradesh	2.3	2.4	3.0	2.6	2.1	1.8	1.8	1.7	1.6	1.5
2. Assam	1.1	1.1	1.1	0.9	1.0	1.0	0.9	0.8	0.7	0.6
3. Bihar	1.6	2.1	1.6	1.4	1.3	1.1	0.0	0.0	0.0	0.0
4. Delhi(DVB)	3.3	NA	NA	NA	NA	1.9	4.4	4.4	4.4	4.4
5. Gujarat	17.0	16.2	16.1	15.2	14.7	15.6	16.1	16.8	15.9	15.9
6. Haryana	7.6	6.4	3.8	3.2	2.6	2.2	0.6	1.6	1.7	1.8
7. Himachal Pradesh	3.4	2.8	2.8	2.6	4.0	3.5	3.3	3.3	3.3	3.0
8. Jammu & Kashmir	8.6	4.7	9.8	10.1	9.8	11.1	6.1	11.1	11.1	11.1
9. Karnataka	4.9	4.1	3.3	3.8	4.9	4.9	4.4	4.2	4.4	3.7
10. Kerala	9.8	9.0	10.0	9.5	8.6	7.7	7.4	5.8	5.1	4.3
11. Madhya Pradesh	9.4	8.8	7.5	9.2	9.0	8.2	8.5	7.8	7.6	7.6
12. Maharashtra	3.4	3.0	3.1	3.1	3.0	2.9	3.6	4.0	3.9	3.8
13. Meghalaya	0.8	0.6	0.8	0.5	1.5	1.3	1.4	1.3	1.2	1.1
14. Orissa	10.3	7.5	9.7	7.4	5.9	5.4	7.3	0.0	0.0	0.0
15. Punjab	6.5	5.3	5.0	4.7	4.4	4.0	3.6	3.6	3.4	4.1
16. Rajasthan(Transco.)	4.6	4.3	4.5	4.2	3.6	3.2	3.3	5.5	6.2	6.4
17. Tamil Nadu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. UP(Power corp.)	2.3	2.1	1.8	1.8	1.8	2.3	2.3	2.1	2.4	2.2
19. West Bengal	1.8	2.8	2.9	3.1	3.2	3.0	3.4	3.8	3.4	3.4
Average :	4.9	5.4	5.1	4.7	4.4	4.4	4.6	4.5	4.4	4.3

Annexure 4.56

**Financial Working of Electricity Departments
(Gross Operating Surplus)**

(Rs.crore)

SEBs	1992- 93	1993- 94	1994- 95	1995- 96	1996- 97	1997- 98	1998- 99	1999- 2000	2000- 01 (RE)	2001- 02 (AP)
1. Arunachal Pradesh	-7.43	NA	-5.89	-10.88	-20.19	-27.60	-34.78	-44.04	-42.10	-33.70
2. Goa	2.91	12.13	16.40	17.06	24.59	25.73	40.48	-0.36	-19.60	-27.52
3. Manipur	0.74	-3.80	-0.44	-18.04	-37.93	-21.05	-5.57	-13.42	-38.54	-53.37
4. Mizoram	-12.35	-14.20	-15.93	-22.41	-23.95	-31.62	-35.58	-51.37	-41.00	-53.16
5. Nagaland	-9.48	-11.10	-13.50	-20.90	-21.05	-20.60	-26.29	-27.12	-32.94	-26.68
6. Ponicherry	5.10	10.55	12.22	11.09	6.93	4.86	-3.16	-12.43	-18.02	-24.45
7. Sikkim	-4.67	-4.50	-5.70	-5.93	-7.30	-9.35	-12.00	-15.19	-19.82	-21.49
8. Tripura	-11.48	-18.20	-28.00	-37.70	-41.70	-43.06	-34.60	-49.08	-71.75	-67.45
Total	-36.66	-29.12	-40.84	-87.71	-120.60	-122.69	-111.50	-213.01	-283.77	-307.82

ANNEXURE 4.57

**Outstanding dues payable to Central Sector PSUs
AS ON 28th February, 2002 (Including Surcharge)**

(Rs. Crores)

Sl. No.	SEBs/STATES	REC	NTPC	NEEPCO	DVC	NHPC	PFC	PGCIL
1	Andhra Pradesh	0.00	355.41	0.00	0.30	0.00	0.24	12.70
2	Arunachal Pradesh	0.01	0.00	21.43	0.00	2.23	0.00	6.20
3	Assam	207.81	89.02	854.97	1.70	2.17	1.17	192.70
4	Bihar	454.35	2222.78	0.00	981.32	36.95	51.04	268.90
5	Chandigarh	0.00	0.33	0.00	0.00	13.53	0.00	0.30
6	Chattisgarh	0.00	269.96	0.00	0.00	0.00	0.00	0.90
7	Delhi	0.00	3476.10	0.00	0.00	615.17	4.93	187.80
8	Demam & Diu	0.00	0.02	0.00	0.00	0.00	0.00	0.00
9	Gujarat	24.04	403.03	0.00	0.00	0.00	0.04	0.00
10	Goa	0.03	0.06	0.00	0.00	0.00	0.00	0.00
11	Haryana	0.00	673.32	0.00	0.00	595.50	0.00	28.10
12	Himachal Pradesh	0.05	45.03	0.00	0.00	79.37	0.27	0.40
13	Jammu & Kashmir	0.26	148.45	0.00	0.00	76.00	0.00	198.50
14	Jharkhand	0.00	1827.12	0.00	1157.00	3.64	0.00	33.60
15	Karnataka	5.88	310.91	0.00	0.00	0.00	0.00	32.20
16	Kerala	0.21	1114.72	0.00	0.00	0.00	0.00	20.20
17	Madhya Pradesh	1632.73	1917.34	0.00	0.00	0.00	125.71	61.10
18	Maharashtra	0.00	744.28	0.00	0.00	0.00	0.00	6.20
19	Manipur	3.70	0.00	148.48	0.00	26.42	0.00	38.80
20	Meghalaya	31.42	0.00	19.54	0.00	1.59	0.00	1.70
21	Mizoram	13.49	0.00	48.44	0.00	8.15	1.18	0.00
22	Nagaland	0.36	0.00	74.56	0.00	9.08	0.16	16.50
23	Orissa	0.00	979.61	0.00	0.00	18.55	0.20	3.40
24	Punjab	0.28	376.43	0.00	0.00	336.10	50.00	9.40
25	Pondicherry	0.00	41.57	0.00	0.00	0.00	0.00	1.70
26	Rajasthan	0.00	339.91	0.00	0.00	68.39	0.10	39.30
27	Sikkim	0.00	47.41	0.00	0.00	2.15	0.00	14.80
28	Tamil Nadu	1.24	590.11	0.00	0.00	0.00	0.00	13.90
29	Tripura	8.51	0.00	66.57	0.00	3.48	0.00	1.10
30	Uttar Pradesh	975.58	4041.27	0.00	0.00	304.64	0.00	136.40
31	Uttaranchal	0.00	384.09	0.00	0.00	0.26	0.00	0.40
32	West Bengal	535.84	1667.50	0.00	927.50	18.16	0.05	88.10

CHAPTER 5

**REFORMS AND RESTRUCTURING
OF STATE ELECTRICITY BOARDS**

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 the 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 achievement in the private sector was only 5061 MW resulting in a shortfall of 71.2%. The main reasons for the shortfall in capacity addition programme of private sector projects are: delay in financial closure of the project and the absence of adequate arrangements for ensuring payment security due to poor financial position of most of the SEBs.

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.

5.2.1 Central Electricity Regulatory Commission (CERC)

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

5.2.2 State Electricity Regulatory Commissions (SERCs)

Nineteen States viz. Orissa, Haryana, Andhra Pradesh, Uttar Pradesh, Karnataka, West Bengal, Tamil Nadu, Punjab, Delhi, Gujarat, Madhya Pradesh,

Arunachal Pradesh, Maharashtra, Rajasthan, Himachal Pradesh, Assam, Chhatisgarh, Kerala and Uttaranchal have either constituted or notified the constitution of State Electricity Regulatory Commission (SERC). SERCs of Orissa, Andhra Pradesh, Uttar Pradesh, Maharashtra, Gujarat, Karnataka, Rajasthan, Delhi, Madhya Pradesh, Himachal Pradesh and West Bengal have issued tariff orders.

The States of Orissa, Haryana, Andhra Pradesh, Uttar Pradesh, Karnataka, Rajasthan, Madhya Pradesh and Delhi have enacted their State Electricity Reforms Acts which provide, inter-alia, for unbundling/ corporation of SEBs, setting up of SERCs etc. The SEBs of Orissa, Haryana, Andhra Pradesh, Karnataka, Uttar Pradesh and Rajasthan have been unbundled/ corporatisation.

The unbundling of Delhi Vidyut Board (DVB) is under active consideration of the Delhi Government.

100% of metering of 11 KV feeders has been completed/is in the final stages of completion in the States/UTs of Goa, Maharashtra, Gujarat, Andhra Pradesh, Karnataka, Tamil Nadu, Kerala, Lakshadweep, Haryana, Himachal Pradesh, Delhi, Uttar Pradesh, Madhya Pradesh, Rajasthan and Punjab. The Ministry of Power has signed Memorandum of Understanding with 20 States to undertake reforms in a time bound manner. These MoUs provide for time bound metering in two phases i.e. (i) metering 11 KV feeders and (ii) at all consumers level. Monitoring is being done to ensure that the agreed milestones are achieved.

5.3 PROGRESS ALONG WITH REFORM PATH BY STATES LEADING THE PROCESS

Reform Path	State	Orissa	Haryana	UP	AP	Karnataka	Raj	Delhi
Date of instituting Reform Act		April 1996	March 1998	Sept. 1998	Oct. 1998	June 1999	June 2000	March 2001
Regulatory Commission Established		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Utility Unbundled		Yes	Yes	Yes	Yes	Yes	Yes	In the process stage
Separate Distribution companies established.		Yes	Yes	No	Yes	No	Yes	In the process stage
Distribution Privatised		Yes	No	No	No	No	No	No process stage

5.3.1 A brief status of reforms in the Power Sector undertaken by the State is given at the Appendix

5.4 Reforms in Distribution Sector

Distribution Reforms have been identified as the key area of reforms in power sector in the country. One of the main strategies identified in this regard is development of distribution plans/projects for all distribution circles. Sixty-three such circles have been identified initially wherein 11 KV feeders will be taken as profit centres. Improvement/strengthening of sub-transmission & distribution network, 100% metering, establishing of an MIS system to improve billing, collection etc. will be taken up in the selected circles. A scheme on Accelerated Power Development Programme (APDP) was initiated in the financial year (2000-01) in order to give a fillip to the reform process in the power sector. The projects under APDP include on the upgradation of sub-transmission & distribution network (below 33 KV or 66 KV) including energy accounting & metering.

Appendix

STATUS OF REFORMS IN STATES

Sl. No.	State	Status of Reform
1	ANDHRA PRADESH	<ul style="list-style-type: none"> ➤ SERC constituted, functional, two tariff orders issued. ➤ Reform Law enacted, SEB unbundled. ➤ Distribution Privatisation strategy being finalised. ➤ MoU signed with Government of India.
2	ARUNACHAL PRADESH	<ul style="list-style-type: none"> ➤ SERC notified (yet to be constituted).
3	ASSAM	<ul style="list-style-type: none"> ➤ Single member SERC constituted ➤ MoU signed with Government of India
4	BIHAR	<ul style="list-style-type: none"> ➤ MoU signed ➤ Tariff revised by SEB
5	CHATTISGARH	<ul style="list-style-type: none"> ➤ MoU signed with Madhya Pradesh adopted.
6	DELHI	<ul style="list-style-type: none"> ➤ SERC constituted, functional. ➤ First tariff order issued. ➤ Reform Law enacted, DVB to be unbundled. ➤ Committed to Distribution privatisation. ➤ REP for Distribution privatisation issued.
7	GOA	<ul style="list-style-type: none"> ➤ MoU signed with Government of India
8	GUJARAT	<ul style="list-style-type: none"> ➤ SERC constituted, functional, first tariff order issued. ➤ Reform Law approved by Government of India and introduced in the State Assembly ➤ MoU signed with Government of India
9	HARYANA	<ul style="list-style-type: none"> ➤ SERC constituted, functional, two tariff orders issued. ➤ Reform Law enacted, SEB unbundled. ➤ MoU signed with Government of India.

10 HIMACHAL PRADESH	<ul style="list-style-type: none"> ➤ One Member HP SERC constituted. Member appointed w.e.f. 6/1/2001. ➤ First tariff order issued. ➤ MoU signed with Government of India.
11 JAMMU AND KASHMIR	<ul style="list-style-type: none"> ➤ G/o J&K has appointed Administrative Staff College of India as consultant for conducting reform studies. ➤ Reform Law has been passed
12 JHARKHAND	<ul style="list-style-type: none"> ➤ MoU signed with Government of India.
13 KARNATAKA	<ul style="list-style-type: none"> ➤ SERC constituted, functional , first tariff order issued. ➤ Reform Law enacted, SEB unbundled. ➤ MoU signed with Government of India. ➤ Distribution privatisation to be completed by Dec.2001 as per MOA signed with Government of India.
14 KERALA	<ul style="list-style-type: none"> ➤ MoU signed with Government of India ➤ SERC constituted
15 MADHYA PRADESH	<ul style="list-style-type: none"> ➤ SERC constituted ➤ First tariff order issued. ➤ Reform Law passed by the Assembly and notified. ➤ MoU signed with Government of India.
16 MAHARASHTRA	<ul style="list-style-type: none"> ➤ SERC constituted, functional, two tariff orders issued. ➤ MoU signed with Government of India.
17 ORISSA	<ul style="list-style-type: none"> ➤ SERC functional, four tariff orders issued. ➤ Reform Law enacted, SEB unbundled. ➤ Distribution Privatised ➤ MoU signed with Government of India.
18 PUNJAB	<ul style="list-style-type: none"> ➤ SERC constituted. Chairman, Members appointed.

19 RAJASTHAN	<ul style="list-style-type: none"> ➤ SERC constituted, functional, two tariff orders issued. ➤ Reform Law enacted, SEB unbundled. One generation, one transmission & three Distribution companies created. ➤ RFP for Distribution privatisation to be issued by July, 2002. ➤ MoU signed with Government of India
20 TAMIL NADU	<ul style="list-style-type: none"> ➤ SERC constituted. ➤ MoU signed with Government of India
21 UTTAR PRADESH	<ul style="list-style-type: none"> ➤ SERC constituted, functional, two tariff orders issued. ➤ Reform Law enacted, SEB unbundled. ➤ Distribution privatisation strategy to be finalised ➤ MoU signed with Government of India
22 UTTARANCHAL	<ul style="list-style-type: none"> ➤ MoU signed with Government of India
23 WEST BENGAL	<ul style="list-style-type: none"> ➤ SERC constituted. ➤ First tariff order issued. ➤ MoU signed with Government of India.
24 NAGALAND 25 MEGHALAYA 26 MIZORAM 27 MANIPUR 28 TRIPURA 29 SIKKIM	<ul style="list-style-type: none"> ➤ Have shown willingness to constitute Joint Electricity Regulatory Commission.