



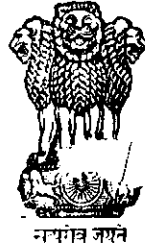
GOVERNMENT OF INDIA
MINISTRY OF ENERGY
DEPARTMENT OF POWER
CENTRAL ELECTRICITY AUTHORITY

PUBLIC ELECTRICITY SUPPLY ALL INDIA STATISTICS

1982-83

GENERAL REVIEW

Compiled By
**POWER DATA BANK & INFORMATION DIRECTORATE
CENTRAL ELECTRICITY AUTHORITY
NEW DELHI**



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FOREWORD

Public Electricity Supply All India Statistics— General Review is being published annually by the CEA. This publication presents, in a summarised form, salient features of the progress and development of electricity supply industry in the country. The pattern followed is broadly the same as in the previous years issue of this publication.

This review has been divided into 10 sections. Section I gives brief details of the undertakings responsible for generation, transmission and distribution of power. Section II & III furnish particulars of generating capacity and generation classified by prime motive power i.e. thermal, hydro and nuclear. Similar details in respect of captive plants are available in Section IV. The details of electric power supply and system losses in the country have been shown in Section V, and the operating data like consumption of fuel, peak demand, etc., have been dealt with in Section VI. Particulars of transmission and distribution lines are available in Section VII. The details of total energy sold to the different categories of consumers are given in Section VIII and particulars regarding total number of consumers and their connected load are shown in Section IX. The urban and rural electrification statistics showing towns and villages electrified and the irrigation pumpsets energised upto 31st March, 1983 are furnished in Section X. A new feature this year is that a brief overview of major achievements in the power sector upto 31st March, 1985 and proposals during Seventh Plan ending 31st March, 1990 have been highlighted in the write-up after this foreword. This has been done with a view to up-date the overall feature in the field of power development.

A comprehensive picture of the progress achieved by the electricity supply industry in each of the States and Union Territories in the country, during the year 1982-83 has been sought to be presented in this publication. The necessity of its timely issue does not need any emphasis keeping in view the relevance and importance of this publication. However, this publication could not be made earlier mainly due to delay in receipt of data from some of the SEBs/Electricity Supply Undertakings in spite of our persistent efforts. The co-operation of electricity supply undertakings, both in public and private sector, is solicited in ensuring that complete statistical details in respect of these undertakings are made available in time to the CEA. It may not be out of context to mention that in some cases, the data supplied are inadequate and found to be inconsistent with the figures furnished for the previous years. In such cases, approximate computation had to be resorted to in order to avoid further delay in the publication.

During the year under review considerable progress was made an addition of capacity as compared to the previous year. Addition to generating capacity touched an all time record of 3060 MW surpassing the previous highest addition of 2176.6 MW, achieved in 1981-82, thus bringing the total installed capacity to 39234.93 MW (35363.27 MW in public utilities and 3871.66 MW in non-utilities) at the end of the year 1982-83. This represents a growth of 9.65 percentage in installed capacity over the previous year. The era of super thermal power station which started during the year 1981-82 has continued to progress with synchronising of first unit of 210 MW in the Second Super Thermal Power Station at Korba (Madhya Pradesh).

During the year 1982-83 the annual growth in electricity generation came down from 10.04% to 6.68%, mainly on account of poor monsoon in the country. During the year 1982-83 Hydro-generation decreased by 2.40% which was however compensated by an increase of 13.33% in generation from steam power Houses.

The electricity sales to various consumers by public utilities during the year increased by 5.92% over the previous year. The maximum consumption of electricity was in the industrial sector being 55.41% of the total sales. The share of electricity consumption by agricultural sector increased from 16.84% in 1981-82 to 18.64% of total sales of electricity by public utilities in 1982-83.

During 1982-83, 2.538 million new consumers were provided electricity, thus increasing the total number of consumers to 37.92 million covering all categories with total connected load of 69709.40 MW. The per capita consumption of electricity during the year increased to 147.05 Kwh from 141.27 Kwh during the previous year.

The emphasis on electrification of rural areas continued during the year. The total number of villages electrified at the end of the year were 323881 (representing 56.2% of the total villages in the country) as compared to 296505 villages electrified at the end of the previous year which represented 51.5% of total villages.

The transmission and distribution network was further augmented by adding new transmission and distribution lines. The total length of T&D lines increased to 2865312 Ckt. Kms. from 2693086 Ckt. Kms. at the end of the previous year representing increase of 6.39%. The overall percentage of electricity lost in T&D was 21.14% as compared to 20.71% during the previous year.

(ii)

This General Review has been compiled in the Power Data Bank & Information Directorate of Central Electricity Authority under the overall guidance of Shri K.P. Rao, Member (Economic & Commercial). I would like to express our sincere appreciation to the officers and staff of PDB&I Directorate of CEA for the meticulous works done in bringing out this Report. Special mention may be made of the effort put in by Sh. K. Gurusurthy, Director, S/Shri S.R. Pabbi and R.C. Gangwani, Deputy Directors, and S/Shri D. P. Rathee and K. P. Berry Extra Assistant Directors, S/Shri Vijay Dhavan, Supervisor, and P. K. Home and M. Sambath Kumar, Prof. Assistants.

We are extremely grateful to the State Electricity Boards, the Power Corporations and other power utilities and non-utilities for their cooperation in furnishing the basic data. This publication would not have been possible but for their unstinting support and favourable response.

No effort has been spared to ensure accuracy of the material included in this Publication. In spite of this if discrepancies have crept in, they may kindly be brought to the attention of the Central Electricity Authority for rectification.

February, 1986.

NEW DELHI.

Sd/ M.K. SAMBAMURTI

Chairman CEA

OVERVIEW OF POWER DEVELOPMENT IN THE COUNTRY—UTILITIES

1. Installed Capacity

Although power development in India commenced as early as in 1900 with the commissioning of hydel power station at Shivasamudram in Karnataka, the progress was not impressive till 1950. The installed capacity was as low as 1713 MW and activity was mainly concentrated around urban areas. The power generation programme, however, made phenomenal progress with the advent of Five Year Plans and with the setting up of State Electricity Boards. Power sector is highly capital intensive and investment in the Sector constitutes a substantial share of the total plan outlay in the country. During the First Five Year Plan, construction of a number of major river valley projects like Bhakra-Nangal, Damodar Valley, Hirakund and Chambal Valley was taken up. These projects resulted in increasing of power generation. At the end of the First Five Year Plan, the installed generating capacity was 2,695 MW and the compounded annual growth rate during the First Five Year Plan was 9.49% and the growth rate remained the same during the First four years of Second Plan also i.e. 9.49%. The growth rate was rapid during the last year of the Second plan and during the Third plan and the installed capacity reached 9027 MW at the end of Third plan. The annual growth rate during the last year of Second plan was 20.14% and that during the Third plan was 14.17%. The three annual plans (1966-69) and the Fourth plan were meant to consolidate the programme initiated during Third plan and the installed capacity at the end of Fourth plan was 16,664 MW resulting in a compounded annual growth rate during three annual plans and Fourth plan of 12.80% and 5.16% respectively. During the Fourth plan, the country entered the era of nuclear power by commissioning of 1st nuclear thermal power station at Tarapur in 1969-70. By the end of the Fifth plan period i.e. at the end of 1978-79, the installed capacity reached 26,681.63 MW and the compounded annual growth rate was 9.87% during this period. The growth rate was 8.33% during the Sixth Plan period ending in March, 1985 mainly due to the growth in installation of coal based thermal power houses in Central Sector as well as in State Sector. This period was also an era of setting up of Super thermal power stations in the country. The installed generating capacity reached 42,440 MW at the end of Sixth plan i.e. as on 31st March, 1985 registering an increase of 49.18% during the Sixth plan period. The percentage average annual growth rate both for the plan periods and for those periods which show a constant growth rate are shown in Exhibit-I. The graph shows year-wise magnitude of the installed capacity in terms of index number (Base 1950). Another achievement during the Sixth plan was commissioning of 500 MW thermal units at Trombay.

2. Energy Generation

Energy generation in the country has been steadily improving. During the First Five year plan, the compounded annual growth rate for generation was 10.97%. The growth rate was rapid during the IInd & IIIrd Five year plans and three annual plans and was of the order of 14.54%, 14.26% & 12.87% respectively. During IVth plan, the compounded annual growth rate was lower and was of the order of 7.05%. The annual growth rate was again lower during the Vth plan, annual plan 1979-80 and the VIth plan and was of the order of 8.98%, 2.05% & 8.45% respectively. The trend of growth rate for the last three and a half decade ending in March 1985 is illustrated in Exhibit-II.

3. Consumption

The consumption of electricity in the country is an indicator of productivity and growth. In 1950, the industrial sector was consuming about 62.6% of the total electricity consumption in the country and the share of agricultural sector was only 3.9%. The pattern of consumption changed considerably in the Second Five year plan due to the development of basic and heavy industries, by consuming 69.3% of total electricity in the year 1960-61. The share of consumption of electricity by industrial sector continued to remain high during the Third five year plan and the subsequent three annual plans. It was around 70% during these periods. The consumption in agricultural sector started rising from 9.3% in 1968-69 to around 17.0% by the end of Fifth Five year plan. The share of agricultural sector in electricity consumption was between 17.18% during the period of Sixth Five Year Plan and was 18.7% during the final year of the plan i.e. 1984-85. A tabular statement indicating the pattern of electricity consumption by different sectors is given in Table-I.

The compounded annual growth rate for consumption of electricity in the country was of the order of 11.34% in the First Five Year Plan which rose to 14.25% in the Second Five Year Plan and 14.07% in the Third Five Year Plan. The compounded annual growth rate was slightly low at 11.79% during three annual plans. The growth rate during the IVth plan further reduced to 6.11% which rose to 9.00% in the Fifth plan period. The growth rate declined to 1.02% during the annual plan 1979-80. However, during the Sixth plan, it rose to 7.8%. The compounded annual growth rate of Electricity consumption has been illustrated in Exhibit-III.

(iv)

Exhibit Nos. IV, V & VI show the growth trend in installed capacity, generation & consumption respectively since the year 1950 in absolute terms including projections for the VIIth Five Year Plan period during 1989-90.

A tabular statement indicating installed capacity, gross generation and consumption in respect of utilities for the years 1950 to 1984-85 and projections by the end of Seventh Five Year Plan i.e. 1989-90 is given in Table-II.

(4) Rural Electrification

In the field of rural electrification and energisation of pump sets, considerable progress has been made since 1950. The number of electrified villages was merely 3061 in 1950 representing only 0.540 of total villages and covering only 2.06% of rural population. Emphasis was laid for rural electrification and energisation of pump sets in Government's 20 Point Programme and the revised 20 P. in Programme resulting in significant achievements in these fields with total number of villages electrified reaching 3,69,340 at the end of March 1985 representing 64.1% of total villages and covering 76.7% of rural population of the country. Similarly number of pump sets energised reached 57,01,563 at the end of March, 1985 which is nearly 47.57% of total potential of 12 million of pump sets in the country.

(5) Highlights of proposals during Seventh Five Year Plan (1985-90)

As per the Seventh Five Year Plan document, among other proposals, the target of addition to the installed capacity has been fixed at 22,245.25MW comprising thermal 15,99.00 MW hydro 5,541.25MW and nuclear 705.00 MW. The total capacity at the end of Seventh Plan has been envisaged as 64,736.18 MW. The compounded annual growth rate during this period works out to 8.8%. Generation from utilities is envisaged to be of the order of 2,80,400 million Kwh in the last year of the VIIth Five Year Plan assuming a compounded annual growth rate of 12.2%. The requirement of electricity from utilities has been envisaged as 2,09,730 million Kwh with compounded annual growth of 12.5%. It has been assumed in the document that the energy requirement will be met fully. The projections of index number by the end of Seventh Five Year Plan are also indicated in Exhibit Nos. I, II & III referred to earlier. In the Seventh Plan, it is proposed to electrify 1.18 lakh villages and 23.9 lakh pump sets bringing the percentage of village electrification to 84.52% of total villages and 67.53% of total potential of irrigation pump sets.

(v)

TABLE NO. I

Pattern of Electricity Consumption

Year	Total energy sold (Mkwh)	Domestic	Commercial	Industrial	Traction	Agriculture	Others
1950 . . .	4,456.66	12.6	7.5	62.6	7.4	3.9	6.0
1951 . . .	4,793.34	12.4	6.9	63.7	6.9	4.3	5.8
1952 . . .	5,005.68	12.6	6.7	64.0	6.5	4.3	5.9
1953 . . .	5,597.08	12.3	7.1	64.6	6.4	3.8	5.8
1954 . . .	6,250.50	12.1	7.1	65.2	6.4	3.7	5.8
1955 . . .	7,111.01	12.0	7.2	66.0	5.7	3.6	5.5
1956 . . .	7,959.34	11.7	6.8	66.9	5.1	4.0	5.5
1957-58 . .	9,345.22	11.6	6.5	66.0	4.5	6.0	5.4
1958-59 . .	10,718.61	11.5	6.3	67.5	4.1	5.5	5.1
1959-60 . .	12,406.94	11.1	6.2	68.2	3.6	6.1	4.8
1960-61 . .	13,840.37	10.7	6.1	69.4	3.3	6.0	4.5
1961-62 . .	16,448.29	10.3	5.7	70.2	3.6	6.0	4.2
1962-63 . .	18,670.02	10.3	5.6	70.2	3.9	5.9	4.1
1963-64 . .	21,793.98	9.7	5.5	73.5	2.2	5.4	3.7
1964-65 . .	24,219.27	9.2	5.9	71.8	3.7	5.8	3.6
1965-66 . .	26,734.94	8.8	6.2	70.8	4.0	7.1	3.3
1966-67 . .	29,127.64	9.0	6.2	70.0	4.1	7.2	3.5
1967-68 . .	32,736.87	8.9	5.3	69.8	4.0	7.9	4.4
1968-69 . .	37,352.35	8.5	5.7	69.3	3.3	9.3	3.9
1969-70 . .	41,061.70	8.6	5.7	69.1	3.5	9.2	3.9
1970-71 . .	43,724.16	8.8	5.9	67.6	3.2	10.2	4.3
1971-72 . .	47,063.20	8.7	6.3	67.2	3.5	10.6	3.7
1972-73 . .	49,088.06	8.8	5.7	65.7	3.7	12.0	4.1
1973-74 . .	50,246.38	9.2	6.0	64.6	3.0	12.6	4.6
1974-75 . .	52,631.64	9.8	5.9	62.1	2.9	14.7	4.6
1975-76 . .	60,245.81	9.66	5.82	62.36	3.08	14.48	4.60
1976-77 . .	66,608.57	9.51	6.22	62.47	3.25	14.44	4.11
1977-78 . .	69,255.03	9.85	6.39	61.57	3.32	14.59	4.28
1978-79 . .	77,292.82	9.80	5.60	61.75	2.83	15.56	4.46
1979-80 . .	78,083.62	10.76	5.96	58.86	2.95	17.23	4.24
1980-81 . .	82,367.18	11.23	5.68	58.36	2.75	17.59	4.39
1981-82 . .	90,245.33	11.57	5.76	58.80	2.78	16.84	4.25
1982-83 . .	95,588.57	12.65	6.12	55.41	2.75	18.64	4.43
1983-84* . .	1,02,684.41	12.88	5.89	56.69	2.58	17.73	4.23
1984-85* . .	1,13,896.55	13.26	6.06	55.61	2.53	18.69	3.85

*Provisional.

(vi)

TABLE NO. II

Table showing installed capacity, Gross generation, energy consumption for the years 1950 to 1989-90 for Public utilities only

Year	Installed Capacity (MW)	Gross Generation (M.Kwh)	Energy Consumption (M. Kwh)
1950	1,712.52	5,106.70	4,156.66
1951	1,835.43	5,858.40	4,793.34
1952	2,061.76	6,120.35	5,005.68
1953	2,305.19	6,697.19	5,597.08
1954	2,494.00	7,521.78	6,252.50
1955	2,694.82	8,592.45	7,111.01
1956	2,886.14	9,662.13	7,959.34
1957-58	3,223.11	11,369.14	9,345.22
1958-59	3,511.59	12,993.89	10,718.61
1959-60	3,873.17	15,032.95	12,406.94
1960-61	4,653.05	16,937.01	13,840.64
1961-62	52,18.82	19,669.95	16,448.29
1962-63	58.01.19	22,364.97	18,679.02
1963-64	65,75.94	26,817.57	21,793.98
1964-65	7,396.67	29,563.08	24,219.27
1965-66	9,027.02	32,990.12	26,734.94
1966-67	10,092.17	36,375.59	29,127.64
1967-68	11,883.16	41,194.64	32,686.87
1968-69	12,957.27	47,433.65	37,352.35
1969-70	14,102.45	51,988.72	41,061.70
1970-71	14,708.95	55,827.64	43,724.16
1971-72	15,254.37	60,925.63	47,063.20
1972-73	16,281.71	64,546.00	49,088.06
1973-74	16,663.56	66,689.03	50,246.38
1974-75	18,316.68	70,190.53	52,631.64
1975-76	20,117.06	79,230.92	60,245.81
1976-77	21,468.59	88,333.31	66,608.57
1977-78	23,668.71	91,369.03	69,255.03
1978-79	26,681.63	1,02,522.52	77,292.82
1979-80	28,447.83	1,04,627.26	78,083.62
1980-81	30,213.68	1,10,843.96	82,367.18
1981-82	32,345.09	1,22,101.43	90,245.33
1982-83	35,363.27	1,30,263.58	95,588.57
1983-84*	39,338.86	1,39,956.28	1,02,684.41
1984-85*	42,440.02	1,56,436.59	1,13,907.49
1989-90@	64,736.18	2,80,400.00	2,09,730.00

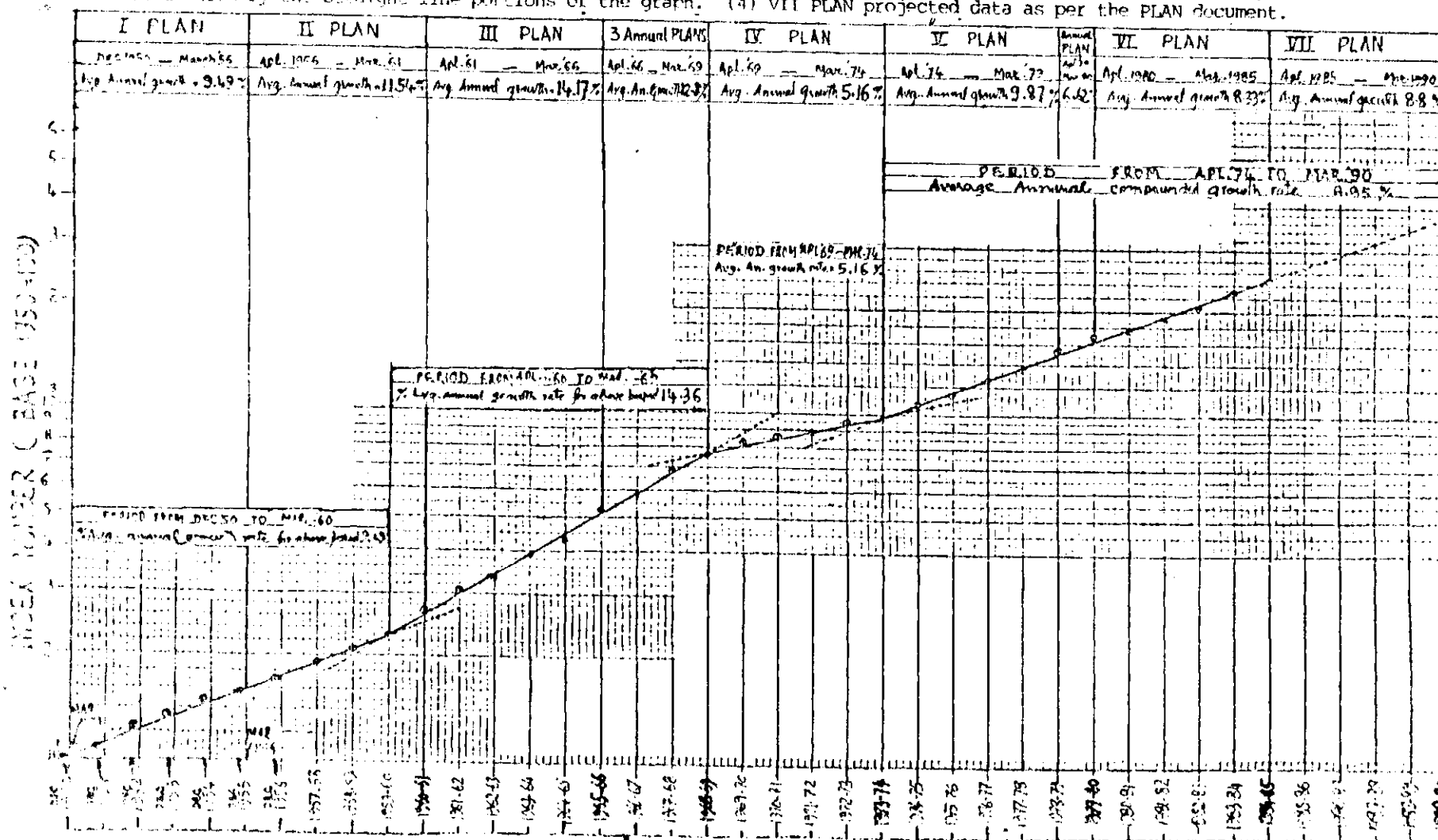
NOTE : -@—Projected figures as per VIIIth Plan document.
*—Provisional.

ALL INDIA INSTALLED GENERATING CAPACITY
(UTILITIES)

EXHIBIT I

NOTES:

(1) Data for years 1950-1956 pertain to calendar year while those for years 1957-58 to 1989-90 pertain to financial years and the data for the period from Dec.1956 to 1957-58 cover a period of 15 months. (2) To arrive at the data in absolute terms, multiply the corresponding index number with the Base Year Installed Capacity of 1712.52 MW. (3) Average annual growth rate in percentage, given below, are shown both for the PLANS periods and for those periods which are covered by the straight line portions of the graph. (4) VII PLAN projected data as per the PLAN document.

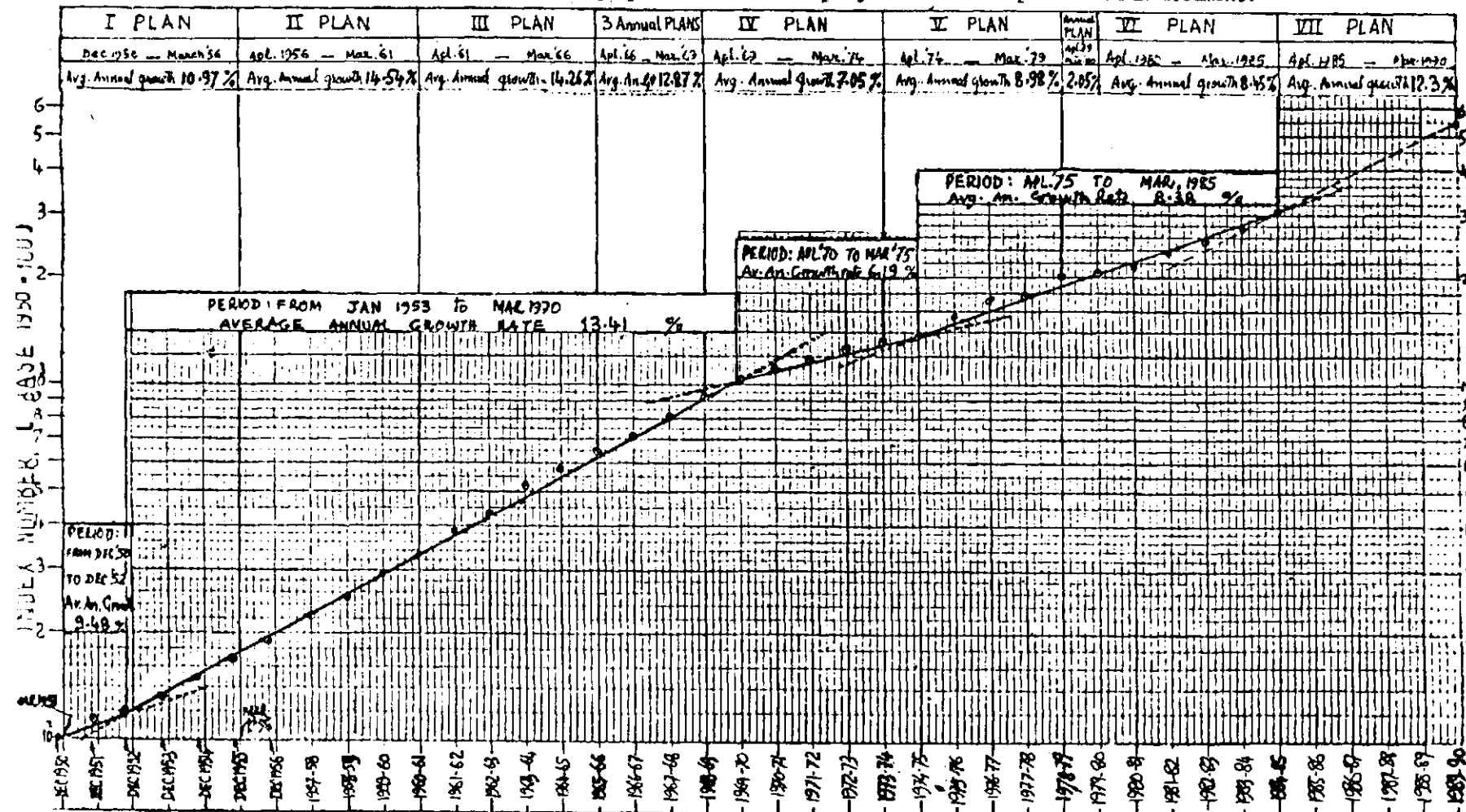


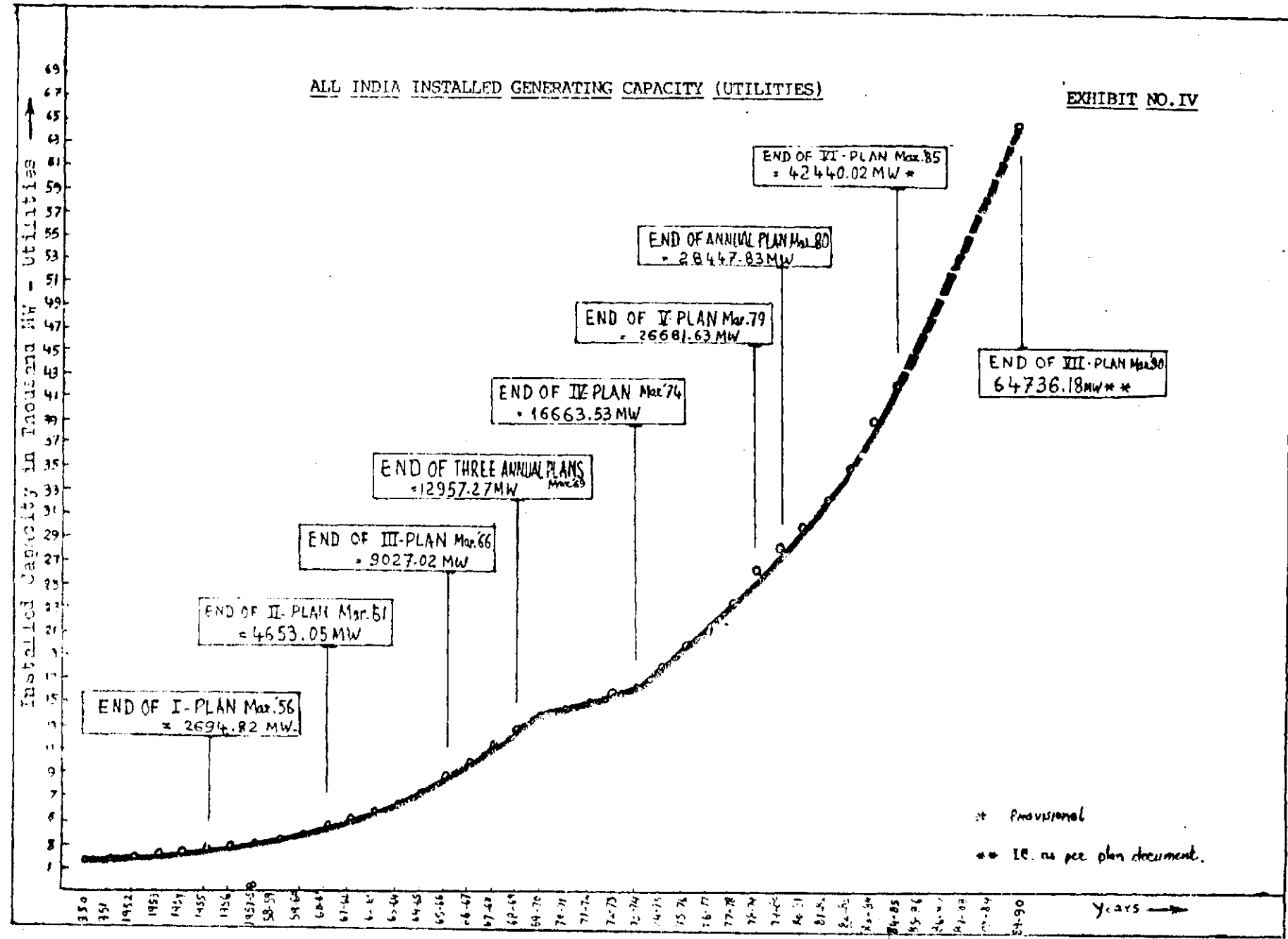
ALL INDIA GROSS ELECTRICITY GENERATION
(UTILITIES)

EXHIBIT II

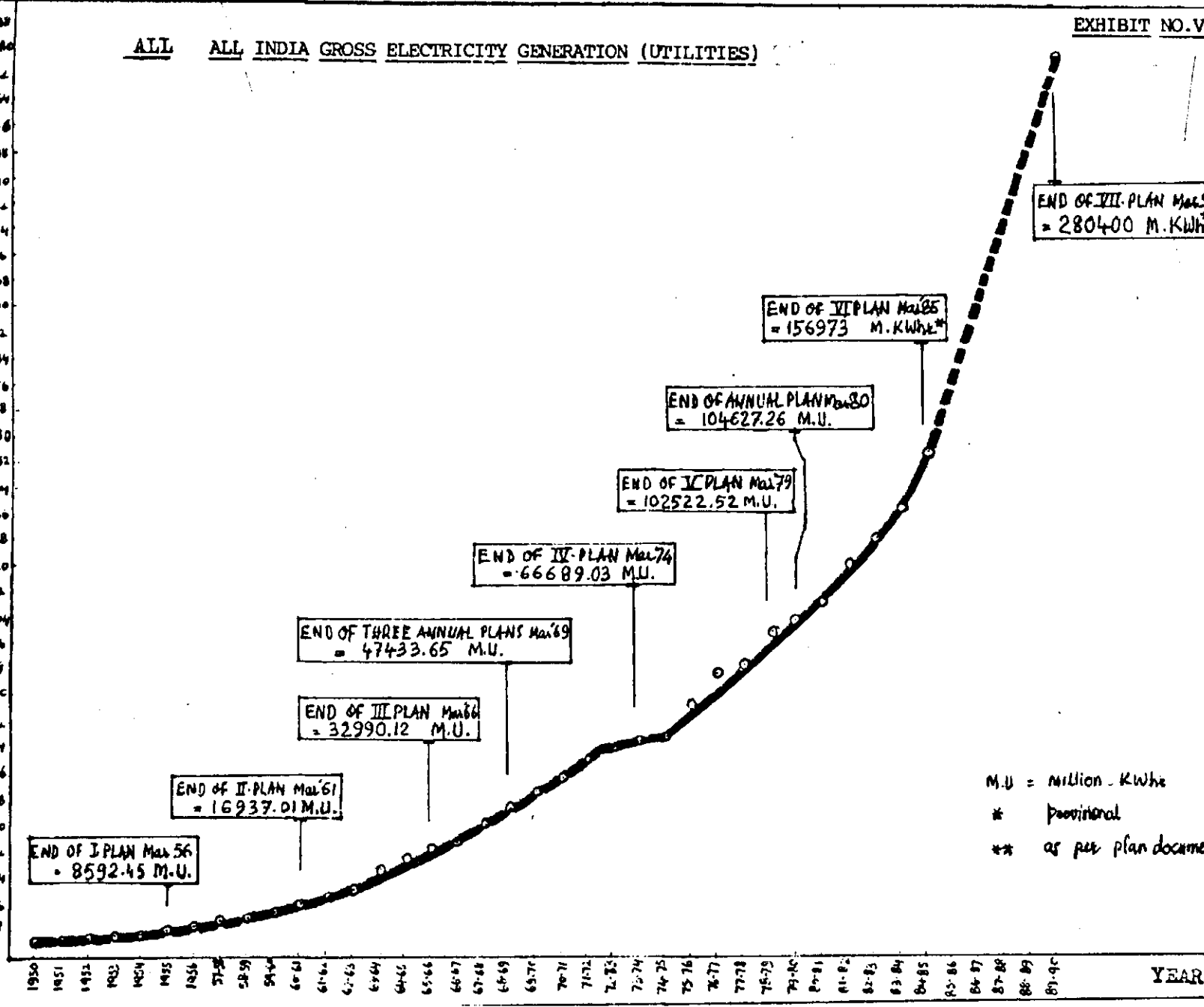
NOTES:

(1) Datas for years 1950-1956 pertain to calander year while those for years 1957-58 to 1989-90 pertain to financial years and the data for the period from Dec.1956 to 1957-58 cover a period of 15 months. (2) To arrive at the Data in absolute Terms, multiply the corresponding index number with the Base Year Generation of 5106.70 GWH. (3) Average annual growth rate in percentage, given below, are shown both for the PLANS periods and for those periods which are covered by the straight line portions of the graph. (4) VII PLAN projected data as per the PLAN document.

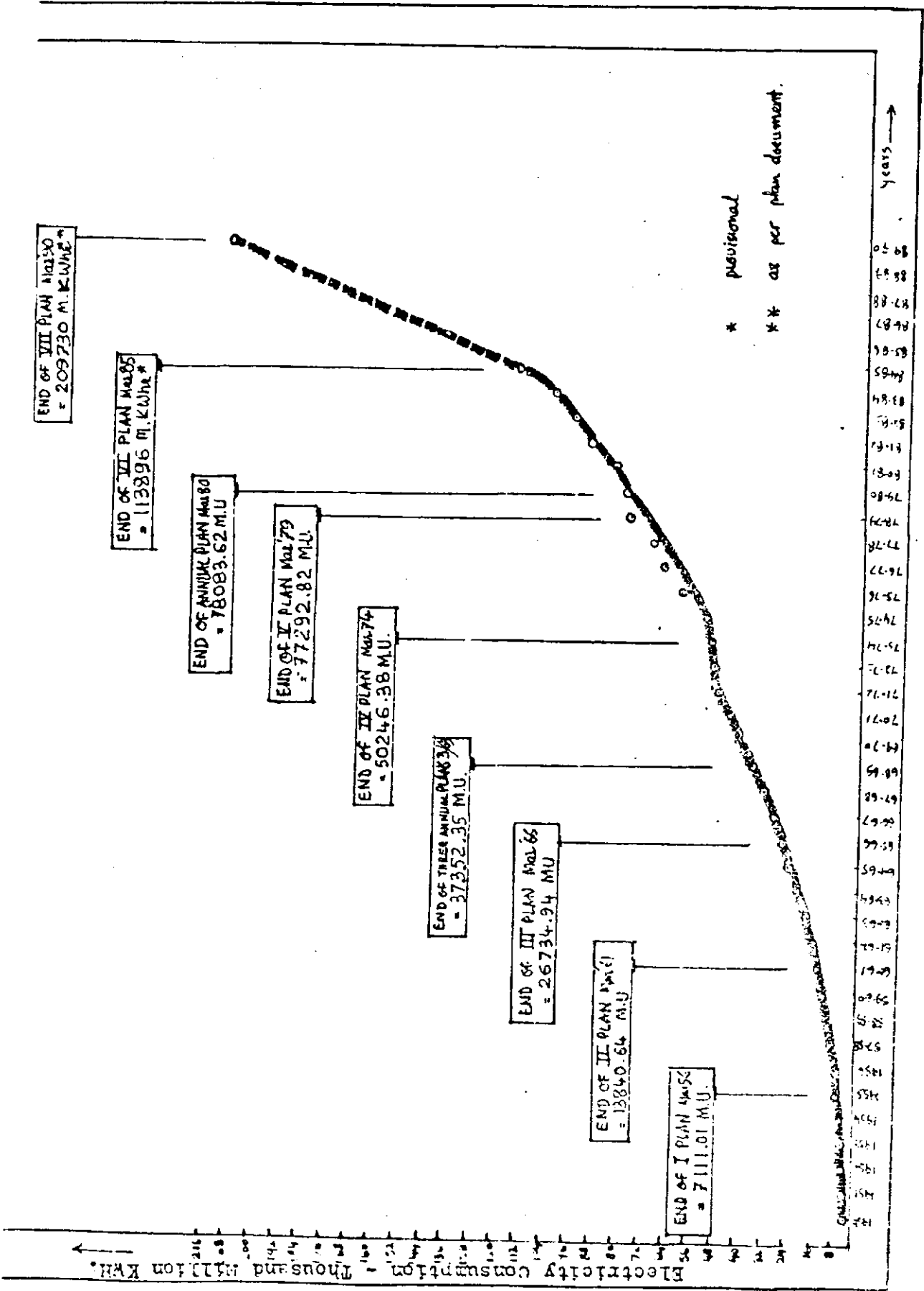




ALL ALL INDIA GROSS ELECTRICITY GENERATION (UTILITIES)



M.U. = Million kWh
 * Provisional
 ** as per plan documents



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SECTION I
**ORGANISATIONAL STRUCTURE OF
ELECTRICITY SUPPLY INDUSTRY
IN INDIA**

ORGANISATION

During the year under review there was no change in number of State Electricity Boards and Electricity Departments, Undertakings. There were 18 State Electricity Boards in the country. All the States except Sikkim, Manipur, Nagaland and Tripura have State Electricity Boards. During the year 1982-83 two Municipal Licensee has been taken over one each by Gujarat Electricity Board and Maharashtra State Electricity Board respectively and eight new private Licensee (Co-operative Society) was formed in the States of Jammu & Kashmir (One), Madhya Pradesh (Four) and Andhra Pradesh (Three). However one Private Licensee (Co-operative) has been taken over by Gujarat Electricity Boards during the year 1982-83. Thus there were in all 38 private licensees and 14 Municipal licensees operative at the end of the year 1982-83. Out of 38 private licensees 25 were Co-operative Societies.

The number of State Electricity Boards Undertakings and Licensees are shown in tables of this Section.

TABLE NO. I

Names of State Electricity Boards established under section 5 of the Electricity Supply Act, 1948

Sl. No.	Name of the State	Name of the State Electricity Board	Date of Establishment
<i>Northern Region</i>			
1.	Haryana	Haryana State Elec. Board, Chandigarh	1-4-1967
2.	Himachal Pradesh	Himachal Pradesh S.E.B. Simla	31-8-197
3.	Jammu & Kashmir	Jammu & Kashmir S.E.B., Jammu/Srinagar	5-9-197
4.	Punjab	Punjab S.E.B., Patiala	1-2-1959
5.	Rajasthan	Rajasthan S.E.B., Jaiur	1-7-1957
6.	Uttar Pradesh	Uttar Pradesh, S.E.B., Lucknow	1-4-1959
<i>Western Region</i>			
7.	Gujarat	Gujarat Elec. Board, Baroda	1-5-1960
8.	Madhya Pradesh	Madhya Pradesh S.E.B., Jabalpur	1-4-1957
9.	Maharashtra	Maharashtra S.E.B., Bombay	20-6-1960
<i>Southern Region</i>			
10.	Andhra Pradesh	Andhra Pradesh S.E.B., Hyderabad	1-4-1959
11.	Karnataka	Karnataka E.B., Bangalore	30-9-1957
12.	Kerala	Kerala S.E.B., Trivandrum	31-3-1957
13.	Tamil Nadu	Tamil Nadu Elec. Board, Madras	1-7-1957
<i>Eastern Region</i>			
14.	Bihar	Bihar S.E.B., Patna | . . . . .	1-4-1958
15.	Orissa	Orissa S.E.B., Bhubaneswar	1-3-1961
16.	West Bengal	West Bengal S.E.B., Calcutta	1-5-1956
<i>North Eastern Region</i>			
17.	Assam	Assam S.E.B., Gauhati	1-6-1958
18.	Meghalaya	Meghalaya S.E.B., Shillong	21-1-1975

S.E.B.—State Electricity Board.

TABLE NO. 2

Names of Generating Companies, Power Corporation, Management Boards under Central or Joint State Partnership for meeting Regional Power Requirements and Electricity Departments of Government of various States/Union Territories

Sl. No.	Name	Location of H.Q.	Ownership
(A) Generating Undertakings			
1.	National Thermal Power Corporation, New Delhi	New Delhi	Central Government
2.	National Hydro Electric Power Corporation	New Delhi	Central Government
3.	North Eastern Electric Power Corporation Ltd. (NEEPCO)*	Shillong	Central Government
4.	Atomic Power Authority	Bombay	Central Government
5.	Central Railways, Chola	Bombay	Central Government
6.	Neyveli Lignite Corporation	Neyveli	Central Government
7.	Damodar Valley Corporation	Calcutta	Central Government
8.	Karnataka Power Corporation	Bangalore	Karnataka Govt.
9.	Bhakra Beas Management Board	Chandigarh	Punjab, Harayna & Rajasthan Govts.
10.	Machkund Hydro Electric Project	Vishakapatnam**	Andhra Pradesh/Orissa Governments.
11.	Tungabhadra Hydro Electric Scheme, Tungabhadra Board	Ballery Distt. Karnataka	Andhra Pradesh/Karnataka Govts.
(B) State Electricity Departments			
1.	Manipur	Imphal	State Government
2.	Nagaland	Kohima	State Government
3.	Sikkim	Gangtok	State Government
4.	Tripura	Agartala	State Government.
(C) Union Territories			
1.	Andaman & Nicobar Islands	Port Blair	Electricity Department of Union Territories.
2.	Arunachal Pradesh	Itanagar	
3.	Chandigarh	Chandigarh	
4.	Dadra & Nagar Haveli*	Silvassa	
5.	Goa, Daman & Diu*	Panaji	
6.	Lakshadweep	Cochin	
7.	Mizoram	Aizawal	
8.	Pondicherry *	Pondicherry	

**Operation of the Power House is under the control of the Superintending Engineer (Operation), Andhra Pradesh State Electricity Board, Vishakapatnam.

*Non-Generating Undertakings.

TABLE NO. 3

Distribution of licensees undertaking

1. *Generating & Distributing*
2. *Generating, Purchasing & Distributing*
3. *Purchasing & Distributing*

Sl. No.	Region/State	Number of Companies			Total
		Generating & Distributing	Generating, Purchasing & Distributing	Purchasing & Distributing	
(A) Northern Region					
1.	Rajasthan	..	..	1	1
2.	Jammu & Kashmir	..	..	1	1
3.	Uttar Pradesh	..	..	1	1
TOTAL NORTHERN REGION		..	..	3	3
(B) Western Region					
1.	Gujarat	..	2	..	2
2.	Madhya Pradesh	..	..	7	7
3.	Maharashtra	..	1	9	10
TOTAL WESTERN REGION		..	3	16	19
(C) Southern Region					
1.	Andhra Pradesh	..	..	6	6
2.	Karnataka	..	..	1	1
3.	Maharashtra	..	..	1	1
4.	Tamil Nadu	..	..	1	1
TOTAL SOUTHERN REGION		..	..	9	9
(D) Eastern Region					
1.	Bihar	..	..	1	1
2.	Orissa	..	..	1	1
3.	West Bengal	..	4	1	5
TOTAL SOUTHERN REGION		..	4	3	7
(E) North Eastern Region					
TOTAL (ALL INDIA)		..	7	31	38

TABLE NO. 4
Distribution of municipal undertakings

Sl. No.	Region/State	Number of Municipalities			Total
		Generating & Distributing	Generating' Distributing & Purchasing	Purchasing & Distributing	
(A) Northern Region					
1.	Punjab . . . . .	..	..	1	1
2.	Delhi . . . . .	..	1	1	2
TOTAL NORTHERN REGION . . . . .		..	1	2	3
(B) Western Region					
1.	Gujarat . . . . .	..	..	2	2
2.	Maharashtra . . . . .	..	..	3	3
TOTAL WESTERN REGION . . . . .		..	..	5	5
(C) Southern Region					
1.	Kerala . . . . .	..	..	1	1
2.	Tamil Nadu . . . . .	..	..	5	5
TOTAL SOUTHERN REGION . . . . .		..	..	6	6
(D) Eastern Region . . . . .		..	..	..	..
(E) North Eastern Region . . . . .		..	..	..	..
TOTAL (ALL INDIA) . . . . .		..	1	13	14

TABLE NO. 5

Acquisition of electricity supply undertaking during 1982-83

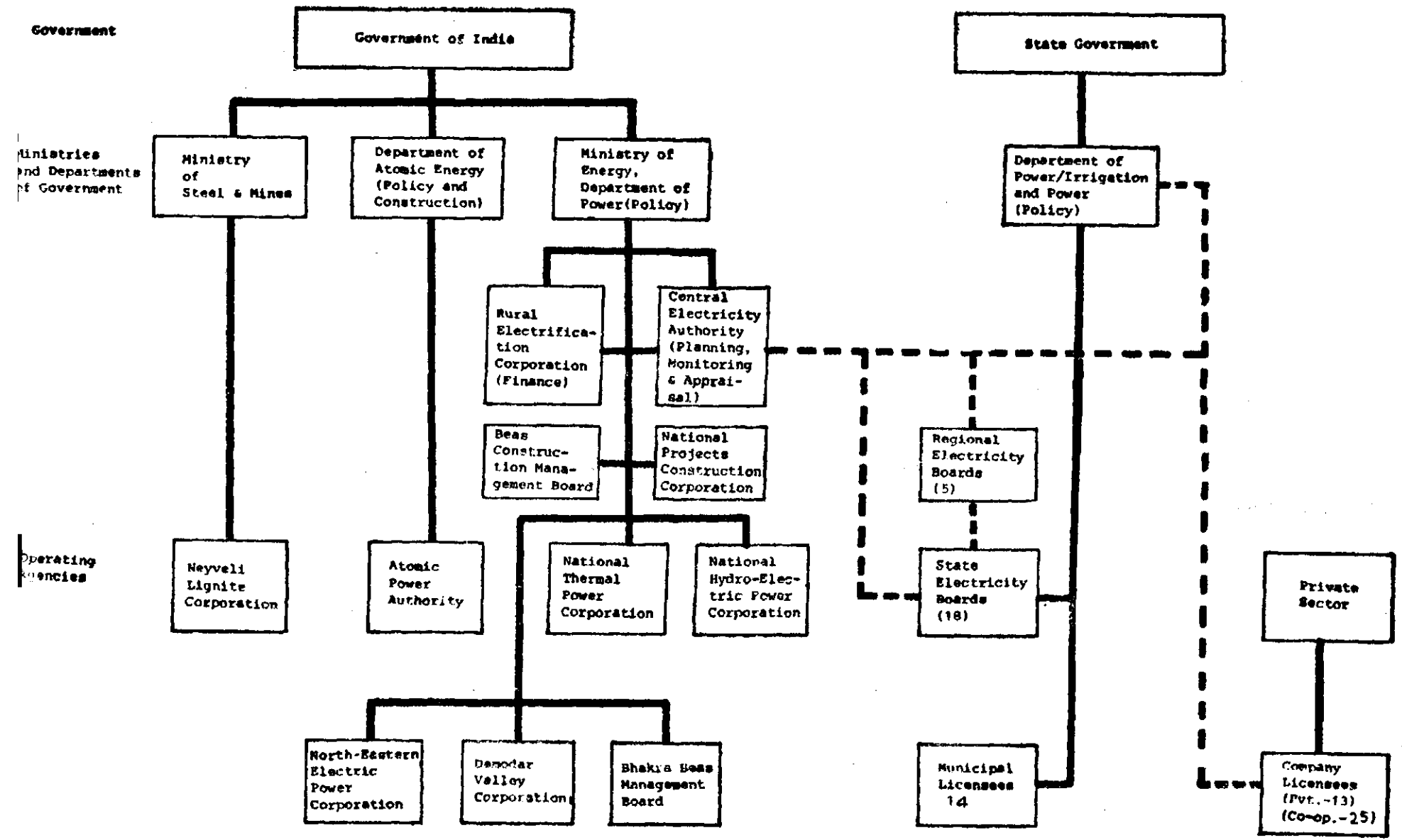
Sl. No.	Name of the Undertaking	Prior Ownership	Date of Aquisition	By whom acquired
(A) GENERATING, PURCHASING & DISTRIBUTING				
(a) Western Region				
1.	Palamur	Municipality	30-6-82	Gujarat Electy. Board.
2.	Sawantwadi	Do.	1-3-83	Maharashtra S.E. Board.
3.	Kodinar	Co-operative	5-12-82	Gujarat S.E. Board.

TABLE NO. 6

New electricity supply undertaking started operating during the year 1982-83

Sl. No.	Name and address of new undertaking	Date of issue of License
1.	The Rural Electric Co-operative Society Ltd., Samba, Vijaypur, Jammu, Jammu & Kashmir	Not available
2.	The Rural Electric Co-operative Society, Chhatapur, Distt. Chhatapur, Madhya Pradesh	3-4-1982
3.	The Rural Electric Co-operative Society, Laundi, Distt. Chhatarpur, Madhya Pradesh	29-3-1982
4.	The Rural Electric Co-operative Society, Multai, Distt. Betul (Madhya Pradesh)	26-3-1981
5.	The Rural Electric Co-operative Society, Rewa, Distt. Rewa (Madhya Pradesh)	29-3-1982
6.	Kuppam Rural Electric Co-operative Society Ltd., Kuppam, Chittoor Distt. (Andhra Pradesh)	10-5-1982
7.	Cheepurupalli Rural Electric Co-operative Society Ltd., Cheepurupalli—532128. Distt. Vizianagaram (Andhra Pradesh)	10-5-1982
8.	Sanjay Rural Electric Co-operative Society Ltd., Andole, Medak Distt. (Andhra Pradesh)	10-5-1982

ORGANISATION STRUCTURE OF ELECTRICITY SUPPLY INDUSTRY IN INDIA



SECTION II
GENERATING CAPACITY (UTILITIES)

INSTALLED GENERATING CAPACITY

During the year under review installed generating capacity under Public Utilities in the country increased to 35363.27 MW as on 31-3-1983 as compared to 32345.09 MW as on 31st March, 1982, registering an increase of 9.33% over the previous year.

After taking into account a few retirements of old generating sets during the year, the net addition in generating capacity amounted to 3018.18 MW.

Generating Capacity of steam Stations continued to form the largest portion of the installed generating capacity followed by Hydro, Nuclear, Gas and Diesel generating stations. The relative percentage of generating capacity of steam, hydro, nuclear, gas and diesel generating station were 58.57%, 36.92%, 2.43%, 1.58% and 0.50% respectively.

There were 102 steam stations and 168 hydro stations having 327 and 534 nos. of generating sets with total capacity of 20712.18 MW and 13055.86MW respectively as on 31st March, 1983.

Besides power stations of public utilities, generating capacity of captive plants of various industries registered an increase of 12.75% during the year 1982-83. Generating Capacity of captive plants increased from 3375.60 MW to 3806.09 MW which comprise of hydro 2.60 MW, steam 2442.38 MW, gas turbine 54.27 MW and 1306.84 MW of diesel generating sets.

In addition to the above, captive plants of 65.57 MW generating capacity were owned by Railways. The total installed generating capacity in the country including those of captive plants of selected industries and Railways was 39234.93 MW as on 31st March, 1983.

The various tables in this section give the detailed salient features of the installed generating capacity in the country as on 31st March, 1983.

TABLE NO. 7
All India Installed Generating Capacity
(UTILITIES AND NON-UTILITIES)
Prime-mover-wise as on 31st March, 1983

Category	Year	Total	Hydro	Steam	
Utilities	31-3-83	35,363.27	13,055.86	20,712.18	
	31-3-82	32,345.09	12,172.81	18,695.18	
	% increase	9.33	7.25	10.79	
Non-Utilities	Selected Industries (I)	31-3-83	3,866.09	2.60	2,442.38
		31-3-82	3,375.60	2.60	2,263.67
		% increase	12.75	..	7.89
	Railways (II)	31-3-83	65.57	..	18.96
		31-3-82	60.51	..	18.96
		% increase	8.36	..	..
	Total Non-Utilities (I+II)	31-3-83	3,871.66	2.60	2,461.34
		31-3-82	3,436.11	2.60	2,282.63
		% increase	12.68	..	7.83
	All India Capacity (Utilities + Non-Utilities)	31-3-83	39,234.93	13,058.46	23,173.52
		31-3-82	35,781.20	12,175.41	20,977.81
		% increase	9.65	7.25	10.47

TABLE NO. 7—Contd.

Category	Year	Diesel	Gas	Nuclear
Utilities	31-3-83	176.23	559.00	860.00
	31-3-82	178.10	439.00	860.00
	% increase	(—)1.05	27.33	..
Selected Industries (I)	31-3-83	1,306.84	54.27	..
	31-3-82	1,060.43	48.90	..
	% increase	23.24	10.98	..
Railways (II)	31-3-83	46.61	..	..
	31-3-82	41.55	..	..
	% increase	12.18	..	..
Total Non-Utilities (I+ II)	31-3-83	1,353.45	54.27	..
	31-3-82	1,101.98	48.90	..
	% increase	22.82	10.98	..
All India Capacity (Utility + Non-Utility)	31-3-83	1,529.68	613.27	860.00
	31-3-82	1,280.08	487.90	860.00
	% increase	19.50	25.70	..

TABLE NO. 8

All India installed generating capacity (Utilities only)
Ownership-wise and Prime-mover-wise as on 31st March, 1983

Sl. No.	Type of Prime mover and ownership	Installed plant capacity (M.W.)	% to total All India	% Increase in installed capacity over the previous year
I. HYDRO				
<i>Public Sector</i>				
(a)	State Electricity Boards	11,339.24	32.06	8.65
(b)	Electricity Deptts./Govt. Undertakings/Corporations/Central Govt. Sector	1,431.62	4.05	(-)1.38
(c)	Municipalities	..	..	..
(SUB-TOTAL A+B+C)		12,770.86	36.11	7.51
<i>Private Sector</i>				
	Companies	285.00	0.81	..
TOTAL (HYDRO) (A+B+C+D)		13,055.86	36.92	7.25
II. STEAM				
<i>Public Sector</i>				
(a)	State Electricity Boards	15,267.35	43.18	9.81
(b)	Electricity Deptts./Govt. Undertakings/Corpn./Central Govt. Sector	4,070.15	11.51	18.31
(c)	Municipalities	255.80	0.72	..
SUB-TOTAL		19,593.30	55.31	11.33
<i>Private Sector</i>				
	Companies	1,118.88	3.16	2.05
TOTAL (STEAM)		20,712.18	58.57	10.79
III. DIESEL				
<i>Public Sector</i>				
(a)	State Electricity Boards	100.58	0.28	(-)3.00
(b)	Electricity Deptts./Govt. Undertakings/Corpn./Central Govt. Sector	55.31	0.16	2.29
(c)	Municipalities	20.00	0.06	..
SUB-TOTAL		175.89	0.50	(-)1.05
<i>Private Sector</i>				
	Companies	0.34	Neg.	..
TOTAL (DIESEL)		176.23	0.50	(-)1.0

TABLE No. 8—Contd.

Sl. No.	Type of Prime mover and ownership	Installed plant capacity(M.W.)	% to total All India	% increase in installed capacity over the previous year
IV. GAS TURBINE				
<i>Public Sector</i>				
(a)	State Electricity Boards	559.00	1.58	27.33
(b)	Electricity Depts./Govt. Undertakings/Corpns./Central Govt. Sector . . . . .	..	..	..
(c)	Municipalities . . . . .	..	..	..
	SUB-TOTAL	559.00	1.58	27.33
<i>Private Sector</i>				
	Companies . . . . .	..	..	..
	TOTAL (GAS)	559.00	1.58	27.33
V. NUCLEAR				
<i>Public Sector</i>				
(a)	State Electricity Boards . . . . .	..	..	..
(b)	Electricity Depts./Govt. Undertakings/Corpns./Central Govt. Sector	860.00	2.43	..
(c)	Municipalities . . . . .	..	..	..
	SUB-TOTAL	860.00	2.43	..
<i>Private Sector</i>				
	Companies . . . . .	..	..	..
	TOTAL (NUCLEAR)	860.00	2.43	..
VI. GRAND TOTAL (I+II+III+IV+V)				
<i>Public Sector</i>				
(a)	State Electricity Boards (18 Nos.)	27,266.17	77.10	9.58
(b)	Electricity Depts./Govt. undertakings/Corpns./Central Govt. Sector (23nos.)	6,417.08	18.15	10.53
(c)	Municipalities (14 nos.)	275.00	0.78	..
	SUB-TOTAL (55 Nos.)	33,959.05	96.03	9.67
<i>Private Sector</i>				
	Companies (36 Nos.)	1,404.22	3.97	1.63
	TOTAL ALL INDIA (93 Nos.)	35,363.27	100.00	9.33

NOTE :—Figures within brackets shows number of undertakings.

TABLE NO. 9

*All India Total installed generating capacity
(UTILITIES ONLY)*

Regionwise/statewise as on 31st March, 1983

Region	State/UTs	Total		
		31-3-82	31-3-83	% increase
<i>Northern Region</i>	Haryana	1,140.93	1,213.65	6.37
	Himachal Pradesh	128.02	128.02	..
	Jammu & Kashmir	206.18	206.18	..
	Punjab	1,586.34	1,703.90	7.41
	Rajasthan	810.06	1,023.26	26.32
	Uttar Pradesh	3,751.87	3,751.87	..
	Chandigarh	2.00	2.00	..
	Delhi	275.00	275.80	..
	Central Sector	1,550.00	1,970.00	27.10
	SUB-TOTAL	9,451.20	10,274.68	8.71
<i>Western Region</i>	Gujarat	2,406.70	2,576.20	7.04
	Madhya Pradesh	1,630.50	1,840.50	12.88
	Maharashtra	4,322.30	4,862.30	12.49
	Goa, Daman & Diu	..	..	..
	D. & N. Haveli	..	..	..
	Central Sector	516.00	726.00	40.70
	SUB-TOTAL	8,875.50	10,005.00	..
<i>Southern Region</i>	Andhra Pradesh	2,240.43	2,677.93	19.53
	Karnataka	1,739.80	1,874.80	7.76
	Kerala	1,011.56	1,011.50	..
	Tamil Nadu	2,539.00	2,539.00	..
	Pondicherry	..	..	..
	Lakshadweep	1.96	2.08	6.12
	Central Sector	600.00	600.00	..
	SUB-TOTAL	8,132.69	8,705.31	7.04
<i>Eastern Region</i>	Bihar	940.48	1,050.48	11.70
	Orissa	1,032.92	1,142.92	10.65
	West Bengal	1,725.98	1,995.98	15.64
	D.V.C.	1,631.50	1,631.50	..
	A.N. Islands	8.76	8.88	1.37
	Sikkim	17.11	17.11	..
	Central Sector	..	..	..
	SUB-TOTAL	5,356.75	5,846.87	9.15
<i>North Eastern Region</i>	Assam	332.78	334.19	0.42
	Manipur	22.79	22.79	..
	Meghalaya	133.66	133.66	..
	Nagaland	5.12	5.12	..
	Tripura	16.76	16.86	0.60
	Arunachal Pradesh	11.27	12.42	10.20
	Mizoram	6.57	6.37	(-)3.05
		SUB-TOTAL	528.95	531.41	0.47
	TOTAL (ALL INDIA)	32,345.09	35,363.27	9.33

NOTE :—Installed capacity of jointly owned projects have been shown divided between partner states as per their theoretical shares.

TABLE No. 10

Installed generating capacity (Utilities only)
Ownershipwise—regionwise/ statewise as on 31-3-83

(In M. W.)

Region	State/U.Ts.	Public Sector		
		State Electricity Boards		
		31-3-82	31-3-83	% increase
<i>Northern Region</i>	Haryana	1,140.93	1,213.65	6.37
	Himachal Pradesh	128.02	128.02	..
	Jammu & Kashmir	206.18	206.18	..
	Punjab	1,586.34	1,703.90	7.41
	Rajasthan	810.06	1,023.26	26.32
	Uttar Pradesh	3,751.87	3,751.87	..
	Chandigarh	..	..	..
	Delhi	..	..	..
Central Sector	..	..	..
	SUB-TOTAL	7,623.40	8,026.88	5.29
<i>Western Region</i>	Gujarat	2,079.00	2,286.00	9.96
	Madhya Pradesh	1,630.50	1,840.50	13.00
	Maharashtra	3,699.80	4,239.80	14.59
	Goa, Daman & Diu	..	..	..
	D. & N. Haveli	..	..	..
	Central Sector	..	..	..
	SUB-TOTAL	7,409.30	8,366.30	12.92
<i>Southern Region</i>	Andhra Pradesh	210.50	2,540.00	20.81
	Karnataka	801.20	936.20	15.85
	Kerala	1,011.50	1,011.50	..
	Tamil Nadu	2,539.00	2,539.00	..
	Pondicherry	..	..	..
	Lakshdweep	..	..	..
	Central Sector	..	..	..
	SUB-TOTAL	6,454.20	7,026.70	8.87
<i>Eastern Region</i>	Bihar	920.48	1,050.48	14.12
	Orissa	998.50	1,108.50	11.02
	West Bengal	1,009.46	1,219.46	20.80
	D.V.C.	..	..	..
	A. & N. Island	..	..	..
	Sikkim	..	..	..
	Central Sector	..	..	..
	SUB-TOTAL	2,928.44	3,378.44	15.31
<i>North Eastern Region</i>	Assam	332.78	334.19	0.50
	Manipur	..	..	..
	Meghalaya	133.66	133.66	..
	Nagaland	..	..	..
	Tripura	..	..	..
	Arunachal Pradesh	..	..	..
	Mizoram	..	..	..
	SUB-TOTAL	446.44	467.85	0.30
	TOTAL (ALL INDIA)	24,881.78	27,266.17	9.58

TABLE NO. 10—Contd.

State/U.Ts.	Public Sector		
	Electricity	Deptt/Govt.	Undertakings
	31-3-82	31-3-83	% increase
Harayana . . . . .	..	..	..
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir . . . . .	..	..	..
Punjab . . . . .	..	..	..
Rajasthan . . . . .	..	..	..
Uttar Pradesh . . . . .	..	..	..
Chandigarh	2.0	2.0	..
Delhi . . . . .	..	..	..
Central Sector	1550.00	1970.00	27.10
SUB-TOTAL	1552.00	1972.00	27.06
Gujarat . . . . .	..	..	..
Madhya Pradesh . . . . .	..	..	..
Maharashtra . . . . .	..	..	..
Goa, Daman & Diu . . . . .	..	..	..
Dadra & Nagar Haveli . . . . .	..	..	..
Central Sector	516.00	726.00	40.70
SUB-TOTAL	516.00	726.00	40.70
Andhra Pradesh	137.93	137.93	..
Karnataka	938.60	938.60	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
Pondicherry . . . . .	..	..	..
Lakshadweep	1.96	2.08	6.12
Central Sector	600.00	600.00	..
SUB-TOTAL	1,678.49	1,678.61	0.01
Bihar	20.00	..	..
Orissa	34.42	34.42	..
West Bengal	205.00	285.00	..
D.V.C.	1,631.50	1,631.50	..
A. & N. Island	8.76	8.88	1.37
Sikkim	17.11	17.11	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	1,996.79	1,976.91	(-)1.00
Assam . . . . .	..	..	..
Manipur	22.79	22.79	..
Meghalaya . . . . .	..	..	..
Nagaland	5.12	5.12	..
Tripura	16.76	16.86	0.60
Arunachal Pradesh	11.27	12.42	10.20
Mizoram	6.57	6.37	(-)3.05
SUB-TOTAL	62.51	63.56	1.68
TOTAL (ALL INDIA)	5,805.79	6,417.08	10.53

TABLE NO. 10—Contd.

State/U.Ts.	Public Sector		
	Municipalities		
	31-3-82	31-3-83	% increase
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh.
Delhi	275.80	275.80	..
Central Sector
SUB-TOTAL	275.80	275.80	..
Gujarat
Madhya Pradesh
Maharashtra
Goa, Daman & Diu
Dadra & Nagar Haveli
Central Sector
SUB-TOTAL
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
SUB-TOTAL
Bihar
Orissa
West Bengal
D.V.C.
Andaman & Nicobar Island
Sikkim
Central Sector
SUB-TOTAL
Assam
Manipur
Meghalaya
Nagaland
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL
TOTAL (ALL INDIA)	275.80	275.80	..

TABLE NO. 10—Contd.

State/U.Ts.	Private Sector		
	31-3-82	31-3-83	% increase
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh.
Delhi
Central Sector
SUB-TOTAL
Gujarat	327.70	290.20	(—)11.45
Madhya Pradesh
Maharashtra	622.50	622.50	..
Goa, Daman & Diu
Dadra & Nagar Haveli
Central Sector
SUB-TOTAL	950.20	912.70	(—)3.95
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
SUB-TOTAL
Bihar
Orissa
West Bengal	431.52	491.52	13.91
D.V.C.
Andaman & Nicobar Islands
Sikkim
Central Sector
SUB-TOTAL	431.52	491.52	13.91
Assam
Manipur
Meghalaya
Nagaland
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL
TOTAL (ALL INDIA)	1,381.72	1,404.22	1.63

TABLE No. 11

Installed generating capacity (Utilities only) primemoverwise
Regionwise/Statewise as on 31st March, 1983 (8n M.W.)

Region	State/UTs.	HYDRO		
		31-3-82	31-3-83	% Increase
<i>Northern Region</i>	Haryana	659.51	732.23	11.03
	Himachal Pradesh	126.52	126.52	..
	Jammu & Kashmir	176.92	176.92	..
	Punjab	1,132.26	1,253.34	10.69
	Rajasthan	648.73	751.93	15.91
	Uttar Pradesh	1,220.08	1,220.08	..
	Chandigarh . . . . .	..	..	..
	Delhi . . . . .	..	..	..
Central Sector	180.00	180.00	..	
	SUB-TOTAL	4,144.02	4,441.02	7.17
<i>Western region</i>	Gujarat	300.00	300.00	..
	Madhya Pradesh	193.00	193.00	..
	Maharashtra	1,317.30	1,317.30	..
	Goa, Daman & Diu . . . . .	..	..	..
	D. & N Haveli . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	1,810.30	1,810.30	..
<i>Southern region</i>	Andhra Pradesh	977.93	1,427.93	46.01
	Karnataka	1,739.80	1,874.80	7.76
	Kerala	1,011.50	1,011.50	..
	Tamil Nadu	1,369.00	1,369.00	..
	Pondicherry . . . . .	..	..	..
	Lakshadweep . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	5,098.23	5,683.23	11.47
<i>Eastern Region</i>	Bihar	150.00	150.00	..
	Orissa	664.42	664.42	..
	West Bengal	38.51	38.51	..
	D.V.C.	104.00	104.00	..
	A. & N Island . . . . .	..	..	..
	Sikkim	15.05	15.05	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	971.98	971.98	..
<i>North Eastern region</i>	Assam . . . . .	..	1.00	..
	Manipur	0.90	0.90	..
	Meghalaya	126.71	126.71	..
	Nagaland	1.50	1.50	..
	Tripura	10.00	10.00	..
	Arunachal Pradesh	9.17	9.22	0.55
	Mizoram . . . . .	..	..	..
	SUB-TOTAL	148.28	149.33	7.45
	TOTAL (ALL INDIA)	12,172.81	13,055.86	7.25

TABLE NO. 11—Contd.

State/Uts.	Steam		
	31-3-82	31-3-83	% Increase
Haryana	477.50	477.50	..
Himachal Pradesh	..	..	..
Jammu & Kashmir	22.50	22.50	..
Punjab	440.00	440.00	..
Rajasthan	153.60	263.00	71.90
Uttar Pradesh	2,513.10	2,413.10	..
Chandigarh,	..	..	..
Delhi	255.80	255.80	..
Central Sector	930.00	1,350.00	45.16
SUB-TOTAL	4,791.90	5,321.90	11.06
Gujarat	2,050.00	2,219.50	8.27
Madhya Pradesh	1,437.50	1,647.50	14.26
Maharashtra	2,885.00	3,305.00	14.56
Goa, Daman & Diu	..	..	..
D. & N. Haveli	..	..	..
Central Sector	96.00	306.00	218.75
SUB-TOTAL	6,468.50	7,478.00	15.61
Andhra Pradesh	1,242.50	1,230.00	(—)1.01
Karnataka	..	..	..
Kerala	..	..	..
Tamil Nadu	1,170.00	1,170.00	..
Pondicherry	..	..	..
Lakshadweep	..	..	..
Central Sector	600.00	600.00	..
SUB-TOTAL	3,012.50	3,060.00	(—)0.42
Bihar	778.50	888.50	14.13
Orissa	368.25	478.25	29.87
West Bengal	1,561.38	1,831.38	17.29
D.V.C.	1,527.50	1,527.50	..
A. & N. Islands	1.65	1.65	..
Sikkim	..	..	..
Central Sector	..	..	..
SUB-TOTAL	4,237.28	4,727.28	11.56
Assam	180.00	180.00	..
Manipur	..	..	..
Meghalaya	5.00	5.00	..
Mizoram	..	..	..
Nagaland	..	..	..
Tripura	..	..	..
Arunachal Pradesh	..	..	..
SUB-TOTAL	185.00	185.00	..
TOTAL (ALL INDIA)	18,695.15	20,712.18	10.79

TABLE NO. 11—(Contd.)

State/Uts.	Diesel		
	31-3-82	3-3-83	% Increase
Haryana	3.92	3.92	—
Himachal Pradesh	1.50	1.50	—
Jammu & Kashmir	6.76	6.76	—
Punjab	14.08	10.56	(—)25.00
Rajasthan	8.33	8.33	..
Uttar Pradesh	6.19	6.19	..
Chandigarh	2.00	2.00	..
Delhi	20.00	20.00	..
Central Sector . . . . .	—	..	..
SUB-TOTAL	62.78	59.26	(—)5.61
Gujarat	2.70	2.70	..
Madhya Pradesh . . . . .	..	..	..
Maharashtra . . . . .	..	..	..
Goa, Daman & Diu . . . . .	..	..	..
Dadra & Nagar Haveli . . . . .	..	..	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	21.70	2.70	..
Andhra Pradesh . . . . .	..	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
Pondicherry . . . . .	..	..	..
Lakshadweep	1.96	2.08	6.12
Central Sector . . . . .	..	..	..
SUB-TOTAL	1.96	2.08	6.12
Bihar	11.98	11.98	..
Orissa	0.25	0.25	..
West Bengal	26.09	26.09	..
D.V.C. . . . .	..	..	..
A. & N. Islands	7.11	7.23	1.69
Sikkim	2.06	2.06	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	47.49	47.61	0.25
Assam	20.28	20.69	2.02
Manipur	21.89	21.89	..
Meghalaya	1.95	1.95	..
Nagaland	3.62	3.62	..
Tripura	6.76	6.86	1.48
Arunachal Pradesh	2.10	3.20	52.38
Mizoram	6.57	6.37	(—)3.05
SUB-TOTAL	63.17	64.58	2.23
TOTAL (ALL INDIA)	178.10	176.23	(—)1.05

TABLE No. 11—(Contd)

State/U. Ts.	Gas		
	31-3-82	31-3-83	%Increase
Haryana	..	..	..
Himachal Pradesh	..	..	..
Jammu & Kashmir	..	..	..
Punjab	..	..	..
Rajasthan	..	..	..
Uttar Pradesh	12.50	12.50	..
Chandigarh	..	..	..
Delhi	..	..	..
Central Sector	..	..	..
SUB-TOTAL	12.50	12.50	..
Gujarat	54.00	54.00	..
Madhya Pradesh	..	..	..
Majorashtra	120.00	240.00	100.00
Goa, Daman & Diu	..	..	..
Central Sector	..	..	..
SUB-TOTAL	174.00	294.00	68.96
Andhra Pradesh	20.00	20.00	..
Karnataka	..	..	..
Kerala	..	..	..
Tamil Nadu	..	..	..
Pondicherry	..	..	..
Lakshadweep	..	..	..
Central Sector	..	..	..
SUB-TOTAL	20.00	20.00	..
Bihar	..	..	..
Orissa	..	..	..
West Bengal	100.00	100.00	..
A. & N. Islands	..	..	..
Sikkim	..	..	..
Central Sector	..	..	..
SUB-TOTAL	100.00	100.00	..
Assam	132.50	132.50	..
Manipur	..	..	..
Meghalaya	..	..	..
Nagaland	..	..	..
Tripura	..	..	..
Arunachal Pradesh	..	..	..
Mizoram	..	..	..
SUB-TOTAL	132.50	132.50	..
TOTAL (ALL INDIA)	439.00	559.00	27.33

TABLE No. 11—(Contd.)

State/U. Ts.	Nuclear		
	31-3-82	31-3-83	%Increase
Haryana
Himachal Pradesh
Jammu R. Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh
Delhi
Central Sector	440.00	440.00	..
SUB-TOTAL	440.00	440.00	..
Gujarat
Madhya Pradesh
Maharashtra
Goa, Daman & Diu
Dadra & Nagar Haveli
Central Sector	420.00	420.00	..
SUB-TOTAL	420.00	420.00	..
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
SUB-TOTAL
Bihar
Orissa
West Bengal
D.V.C.
A. R. N. Islands
Sikkim
Central Sector
SUB-TOTAL
Assam
Manipur
Meghalaya
Nagaland
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL
TOTAL (ALL INDIA)	860.00	860.00	..

TABLE No. 12
Installed Generating Capacity of State Electricity Boards Primemoverwise as on 31st, March 1983.

Region	State/U.Ts.	Hydro		
		31-3-82	31-3-83	% increase
<i>Northern Region</i>	Haryana	659.51	732.23	11.03
	Himachal Pradesh	126.52	126.52	..
	Jammu & Kashmir	176.92	176.92	..
	Punjab	1,132.26	1,253.34	10.69
	Rajasthan	648.73	751.93	15.91
	Uttar Pradesh	1,220.08	1,220.08	..
	SUB-TOTAL	3,964.02	4,261.02	7.49
<i>Western Region</i>	Gujarat	300.00	300.00	..
	Madhya Pradesh	193.00	193.00	..
	Maharashtra	1,320.30	1,032.30	..
	SUB-TOTAL	1,525.30	1,525.30	..
<i>Southern Region</i>	Andhra Pradesh	840.00	1,290.00	53.57
	Karnataka	801.20	936.20	16.85
	Kerala	1,011.50	1,011.50	..
	Tamil Nadu	1,369.00	1,369.00	..
	SUB-TOTAL	4,021.70	4,606.70	14.55
<i>Western Region</i>	Bihar	130.00	150.00	15.38
	Orissa	630.00	630.00	..
	West Bengal	38.51	38.51	..
	SUB-TOTAL	798.51	818.51	2.50
<i>North Western Region</i>	Assam . . . . .	..	1.00	..
	Meghalaya	126.71	126.71	..
	SUB-TOTAL	126.71	127.71	0.79
	TOTAL (ALL INDIA)	10,436.24	11,339.24	8.65

TABLE NO. 12— (Contd.)

State/U.Ts.	Steam		
	31-3-82	31-3-83	% increase
Haryana	477.50	477.50	..
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir	22.50	22.50	..
Punjab	440.00	440.00	..
Rajasthan	153.00	263.00	71.90
Uttar Pradesh	2,513.10	2,513.10	..
SUB-TOTAL	3,606.10	3,716.10	3.05
Gujarat	1,722.50	1,929.50	12.02
Madhya Pradesh	1,437.50	1,647.50	14.26
Maharashtra	2,547.50	2,967.50	16.49
SUB-TOTAL	5,707.50	6,544.50	14.66
Andhra Pradesh	1,242.50	1,230.00	(—)1.01
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu	1,170.00	1,170.00	..
SUB-TOTAL	2,412.50	2,400.00	(—)0.52
Bihar	778.50	888.50	14.13
Orissa	368.15	478.25	29.87
West Bengal	845.00	1,055.00	24.85
SUB-TOTAL	1,991.75	2,421.75	21.59
Assam	180.00	180.00	..
Meghalaya	5.00	5.00	..
SUB-TOTAL	185.00	185.00	..
TOTAL (ALL BORADS)	13,902.85	152,67.35	9.81

TABLE No. 12—(Contd.)

State/U.Ts.	Diesel		% increase
	31-3-82	31-3-83	
Haryana	3.92	3.92	..
Himachal Pradesh	1.50	1.50	..
Jammu & Kashmir	6.76	6.76	..
Punjab	14.08	10.56	(—) 25.00
Rajasthan	8.33	8.33	..
Uttar Pradesh	6.19	6.19	..
SUB-TOTAL	40.78	37.26	(—) 8.63
Gujarat	2.50	2.50	..
Madhya Pradesh . . . . .	..	..	..
Maharashtra . . . . .	..	..	..
SUB-TOTAL	2.50	2.50	..
Andhra Pradesh . . . . .	..	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
SUB-TOTAL . . . . .	..	..	..
Bihar	11.98	11.98	..
Orissa	0.25	0.25	..
West Bengal	25.95	25.95	..
SUB-TOTAL	38.18	38.18	..
Assam	20.28	20.69	2.02
Meghalaya	1.95	1.95	..
SUB-TOTAL	22.23	22.64	1.84
TOTAL (ALL BOARDS)	103.69	100.58	(—) 3.00

TABLE No. 12—(Contd.)

State/U.Ts.	Gas		
	31-3-82	31-3-83	% increase
Haryana . . . . .	..	..	..
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir . . . . .	..	..	..
Punjab . . . . .	..	..	..
Rajasthan . . . . .	..	..	..
Uttar Pradesh	12.50	12.50	..
SUB-TOTAL	12.50	12.50	..
Gujarat	54.00	54.00	..
Madhya Pradesh . . . . .	..	..	..
Maharashtra	120.00	240.00	100.00
SUB-TOTAL	174.00	294.00	68.96
Andhra Pradesh	20.00	20.00	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
SUB-TOTAL	20.00	20.00	..
Bihar . . . . .	..	..	..
Orissa . . . . .	..	..	..
West Bengal	100.00	100.00	..
SUB-TOTAL	100.00	100.00	..
Assam	132.50	132.50	..
Meghalaya . . . . .	..	..	..
SUB-TOTAL	132.50	132.50	..
TOTAL (ALL BOARDS)	439.00	559.00	27.33

TABLE No. 12—(Contd.)

State/U.Ts.	Total		
	31-3-82	31-3-83	% increase
Haryana	1,140.93	1,213.65	6.37
Himachal Pradesh	128.02	128.02	..
Jammu & Kashmir	206.18	206.18	..
Punjab	1,586.34	1,703.90	7.41
Rajasthan	810.06	1,023.26	26.32
Uttar Pradesh	3,751.87	3,751.87	..
SUB-TOTAL	7,623.40	8,026.88	5.29
Gujarat	2,079.00	2,286.00	9.96
Madhya Pradesh	1,630.50	1,840.50	13.00
Maharashtra	3,699.80	4,239.80	14.59
SUB-TOTAL	7,409.30	8,366.30	12.92
Bihar	920.48	1,050.48	14.12
Orissa	998.50	1,108.50	11.02
West Bengal	1,009.46	1,129.46	20.80
SUB-TOTAL	2,928.44	3,378.44	15.37
Andhra Pradesh	2,102.50	2,540.00	20.81
Karnataka	801.20	936.20	16.85
Kerala	1,011.50	1,011.50	..
Tamil Nadu	2,539.00	2,539.00	..
SUB-TOTAL	6,454.20	7,026.70	8.87
Assam	332.78	334.19	0.51
Meghalaya	133.66	133.66	..
SUB-TOTAL	466.44	467.85	0.30
TOTAL (ALL BOARD)	24,881.78	27,266.17	9.58

NOTE : There is no nuclear power stations under any State Electricity Board.

TABLE NO. 13

Installed Generating Capacity of Electricity Department/Govt. Undertakings, Municipalities & Private Sector Primemoverwise—Regionwise as on 31-3-1983

Ownership	Total		
	31-3-82	31-3-82	% Increase
I. Electricity Department/Govt. Undertaking/Corporation/Central Sector :			
<i>Northern Region</i>			
Chandigarh	2.00	2.00	..
Central Sector	1,550.00	1,970.00	2.10
<i>Western Region</i>			
Central Sector	516.00	726.00	40.70
<i>Southern Region</i>			
Andhra Pradesh	137.93	137.93	..
Karnataka	938.60	938.60	..
Lakshadweep	1.96	2.08	6.12
Central Sector	600.00	600.00	..
<i>Eastern Region</i>			
Bihar	20.00	..	..
Orissa	34.42	34.42	..
Sikkim	17.11	17.11	..
West Bengal]	285.00	285.00	..
D.V.C.	1,631.50	1,631.50	..
A. & N. Islands	8.76	8.88	1.37
<i>North Eastern Reigon</i>			
Manipur	22.79	22.79	..
Nagaland	5.12	5.12	..
Tripura	16.76	16.86	0.60
Arunachal Pradesh	11.27	12.42	10.20
Mizoram	6.57	6.37	(—) 3.05
TOTAL (I)	5,805.79	6,417.08	10.53
II. Municipalities :			
<i>Northern Region</i>			
Delhi	275.80	275.80	..
<i>Western Region</i>			
Grujarat . . . . .	..	..	..
<i>Eastern Region</i>			
West Bengal . . . . .	..	..	..
TOTAL (II)	275.80	275.80	..
III. Private Licensees :			
<i>Western Region</i>			
Gujarat	327.70	290.20	(—) 11.45
Maharashtra	622.50	622.50	..
<i>Eastern Region</i>			
West Bengal	431.52	491.52	13.91
TOTAL (III)	1,381.72	1,404.22	1.63

TABLE No. 13—(Contd.)

Ownership	Hydro			
	31-3-82	31-3-83	%Increase	
I. Electricity Deptt./Govt. Undertaking Corporation Central Sector :				
<i>Northern Region</i>	Chandigarh	..	..
	Central Sector	180.00	180.00	
<i>Western Region</i>	Central Sector	..	..
<i>Southern Region</i>	Andhra Pradesh	137.93	137.93	
	Karnataka	938.60	938.60	
	Lakshadweep	..	..
	Central Sector	..	..
<i>Eastern Region</i>	Bihar	20.00	..	
	Orissa	34.42	34.42	
	Sikkim	15.05	15.05	
	West Bengal	..	..
	A. & N. Islands	..	..
	D.V.C.	104.00	104.00	
<i>North Eastern Region</i>	Manipur	0.90	0.90	
	Nagaland	1.50	1.50	
	Tripura	10.00	10.00	
	Arunachal Pradesh	9.17	9.22	0.55
	Mizoram	..	..
	TOTAL (I)	1,451.57	1,431.62	(-)1.38
II. Municipalities :				
<i>Northern Region</i>	Delhi	..	..
<i>Western Region</i>	Gujarat	..	..
<i>Eastern Region</i>	West Bengal	..	..
	TOTAL (II)
III. Private Licensees :				
<i>Western Region</i>	Gujarat	..	..
	Maharashtra	285.00	285.00	
<i>Eastern Region</i>	West Bengal	..	..
	TOTAL (III)	285.00	285.00	..

TABLE NO. 13—(Contd.)

Ownership	Steam		% Increase
	31-3-82	31-3-83	
I. Electricity Department/Govt. Undertaking/Corporation/ Central Sector :			
<i>Northern Region</i>	Chandigarh . . . . .	..	..
	Central Sector	930.00	1,350.00
			45.16
<i>Western Region</i>	Central Sector	96.00	306.00
<i>Southern Region</i>	Andhra Pradesh . . . . .	..	..
	Karnataka . . . . .	..	..
	Lakshadweep . . . . .	..	..
	Central Sector	600.00	600.00
			..
<i>Eastern Region</i>	Bihar . . . . .	..	..
	Orissa . . . . .	..	..
	Sikkim . . . . .	..	..
	West Bengal	285.00	285.00
	D.V.C.	1,527.50	1,527.50
	A. & N. Islands	1.65	1.65
			..
<i>North Eastern Region</i>	Manipur . . . . .	..	..
	Nagaland . . . . .	..	..
	Tripura . . . . .	..	..
	Arumachal Pradesh . . . . .	..	..
	Mizoram . . . . .	..	..
			..
	TOTAL (I)	3,440.15	4,070.15
			18.31
II. Municipalities :			
<i>Northern Region</i>	Delhi	255.80	255.80
<i>W. Region</i>	Gujarat . . . . .	..	..
<i>E. Region</i>	West Bengal . . . . .	..	..
			..
	TOTAL (II)	255.80	255.80
			..
III. Private Licensees :			
<i>Western Region</i>	Gujarat	327.50	290.00
	Maharashtra	337.50	337.50
<i>Eastern Region</i>	West Bengal	431.38	491.38
			13.91
	TOTAL (III)	1,096.38	1,118.88
			2.05

TABLE NO. 13—Contd.

Ownership	Desisel			
	31-3-82	31-3-83	% Increase	
I. Electricity Deptt./Govt. Undertaking/Corporation/Central Sector :				
<i>Northern Region</i>	Chandigarh	2.00	2.00	..
	Central Sector . . . . .	..	..	..
<i>Western Region</i>	Central Sector . . . . .	..	..	..
<i>Southern Region</i>	Andhra Pradesh . . . . .	..	..	..
	Karnataka . . . . .	..	..	..
	Lakshadweep	1.96	2.08	6.12
	Central Sector . . . . .	..	..	..
<i>Eastern Region</i>	Bihar . . . . .	..	..	..
	Orissa . . . . .	..	..	..
	Sikkim	2.06	2.06	..
	West Bengal . . . . .	..	..	..
	D.V.C. . . . .	..	..	..
	A. & N. Islands	7.11	7.23	1.69
<i>North Eastern Region</i>	Manipur	21.89	21.89	..
	Nagaland	3.62	3.62	..
	Tripura	6.76	6.86	1.48
	Arunachal Pradesh	2.10	3.20	52.38
	Mizoram	6.57	6.37	(-)3.05
	TOTAL (I)	54.07	55.31	2.29
II. Municipalities :				
<i>Northern Region</i>	Delhi	20.00	20.00	..
<i>W. Region</i>	Gujarat . . . . .	..	..	..
<i>E. Region</i>	West Bengal . . . . .	..	..	..
	TOTAL (II)	20.00	20.00	..
III. Private Licensees :				
<i>Western Region</i>	Gujarat	0.20	0.20	..
	Maharashtra . . . . .	..	..	..
<i>Eastern Region</i>	West Bengal	0.14	0.14	..
	TOTAL (III)	0.34	0.34	..

TABLE NO. 13—Contd.

		Nuclear		
		31-3-82	31-3-83	% Increase
I. Electricity Deptt./Govt. Undertaking/Corporation/Central Sector :				
<i>Northern Region</i>	Chandigarh	..	..	..
	Central Sector	440.00	440.00	..
<i>Western Region</i>	Central Sector	420.00	420.00	..
<i>Southern Region</i>	Andhra Pradesh	..	..	..
	Karnataka	..	..	..
	Lakshadweep	..	..	..
	Central Sector	..	..	..
<i>Eastern Region</i>	Bihar	..	..	..
	Orissa	..	..	..
	Sikkim	..	..	..
	West Bengal	..	..	..
	D.V.C.	..	..	..
	A. & N. Islands	..	..	..
<i>North Eastern Region</i>	Manipur	..	..	..
	Nagaland	..	..	..
	Tripura	..	..	..
	Arunachal Pradesh	..	..	..
	Mizoram	..	..	..
TOTAL (I)		860.00	860.00	..
II. Municipalities :				
<i>Northern Region</i>	Delhi	..	..	..
<i>Western Region</i>	Gujarat	..	..	..
<i>Eastern Region</i>	West Bengal	..	..	..
TOTAL (II)		..	..	..
III. Private Licensees :				
<i>Western Region</i>	Gujarat	..	..	..
	Maharashtra	..	..	..
<i>Eastern Region</i>	West Bengal	..	..	..
TOTAL (III)		..	..	..

TABLE NO. 14

Addition in Generation Capacity (Utilities only)
During the Year 1982-83

(A) HYDRO

Sl. No.	Installed at	State (Ownership)	Date of Addition	No. of Sets	Capacity of each Set (MW)	Total Capacity (MW)
1.	Pong (Unit 5 & 6)	inter state (B.B.M.B.)	19-9-82 25-2-83	2	60.00	120.00
2.	Dehar (Unit 5)	inter state (B.B.M.B.)	26-3-83	1	165.00	165.00
3.	Nagarjuna Sagar (Unit 3 & 4)	A. P. (S.E.B.)	22-6-82 30-3-83	2	100.00	200.00
4.	Nagarjuna Sagar Right Bank Canal (Unit-1)	A.P. (S.E.B.)	24-2-83	1	30.00	30.00
5.	Sirsailam (Unit 1 & 2)	A.P. (S.E.B.)	30-8-82 15-12-82	2	110.00	220.00
6.	Kalinadi (Unit-5)	Karnataka (S.E.B.)	28-2-83	1	135.00	135.00
TOTAL (HYDRO)				9		870.00

NOTE : Total does not include addition in micro-hydel power houses.

TABLE No. 14—(Contd.)

(B) STEAM GAS NUCLEAR

Sl. No.	Installed at	State Ownership	Date of Addition	No. of Sets	Capacity of each set (MW)	Total Capacity (MW)
1.	Kota (Unit 1)	Rajasthan (S.E.B.)	17-1-83	1	110.00	110.00
2.	Singrauli (Unit 1)	U.P. (Central Sector)	25-11-82 28-3-83	2	210.00	420.00
3.	Wanak-bori (Unit 2)	Gujarat (S.E.B.)	15-1-83	1	210.00	210.00
4.	Satpura (Unit 8)	M.P. (S.E.B.)	25-1-83	1	210.00	210.00
5.	Bhusawal (Unit 3)	Maharashtra (S.E.B.)	4-5-82	1	210.00	210.00
6.	Koradi St. III (Unit 7)	Maharashtra (S.E.B.)	13-1-83	1	210.00	210.00
7.	Uran * (Unit 3 & 4)	Maharashtra (S.E.B.)	25-5-82 21-7-82	2	120.00	240.00
8.	Korba (Unit 1)	M.P. Central Sector	1-3-83	1	210.00	210.00
9.	Barauni (Unit 6)	Bihar (S.E.B.)	31-3-83	1	210.00	210.00
10.	Talcher (Unit 6)	Orissa (S.E.B.)	21-3-82	1	110.00	110.00
11.	Bandel (Unit 5)	West Bengal (S.E.B.)	8-10-82	1	210.00	210.00
12.	Titagarh (Unit 1)	West Bengal (C.E.S.C.)	12-12-82	1	60.00	60.00
SUB-TOTAL				14		2,190.00
TOTAL (HYDRO + GAS + NUCLEAR)				23		3,060.00

NOTE :—Excludes Capacity addition in Diesel Power Station.

*—Gas Stations.

S.E.B.—State Electricity Boards.

TABLE NO. 15

*Addition/Deletion of Plant Capacity
Primemoverwise/Regionwise/Statewise During the Year 1982-83*

(In MW)

Region	Name of State/U.Ts.	Hydro	Steam	Diesel
<i>Northern Region</i>	Haryana	(+)72.72	..	..
	Himachal Pradesh . . . . .	..	..	..
	Jammu & Kashmir . . . . .	..	..	..
	Punjab	(+)121.08(A)	..	(+)3.52(A)
	Rajasthan	(+)103.20	(+)110.00	..
	Uttar Pradesh . . . . .	..	..	..
	Central Sector . . . . .	..	420.00	..
	SUB-TOTAL	297.00	530.00	(-)3.52
<i>Western Region</i>	Gujarat . . . . .	..	169.50(B)	..
	Madhya Pradesh . . . . .	..	210.00	..
	Maharashtra . . . . .	..	420.00	..
	Central Sector . . . . .	..	210.00	..
	SUB-TOTAL	..	1,009.50	..
<i>Eastern Region</i>	Bihar . . . . .	..	110.00	..
	Orissa . . . . .	..	110.00	..
	West Bengal . . . . .	..	270.00	..
	D.V.C. . . . .	..	..	..
	A. & N. Islands . . . . .	..	..	(+)0.12(A)
	Sikkim . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	..	490.00	(+)0.12
<i>Southern Region</i>	Andhra Pradesh	450.00	(-)12.50 (C)	..
	Karnataka	135.00	..	..
	Tamil Nadu . . . . .	..	..	..
	Lakshadweep . . . . .	..	..	(+)0.12(I)
	SUB-TOTAL	585.00	(-)12.50	(+)0.12
<i>North Eastern Region</i>	Assam	1.00*	..	(+)0.41(D)
	Manipur . . . . .	..	..	..
	Meghalaya . . . . .	..	..	..
	Nagaland . . . . .	..	..	..
	Tripura . . . . .	..	..	(+)0.10(E)
	Arunachal Pradesh	0.05 (F)	..	(+)1.10(F)
	Mizoram . . . . .	..	..	(-)0.20(G)
	SUB-TOTAL	1.05	..	(+)1.41
	TOTAL (ALL INDIA)	883.05	2,070.00	(-)1.87

*Capacity added in Micro Hydel Power Station.

TABLE No. 15—Contd.

Name of State/UTs.	Gas	Nuclear	Total			
Haryana	72.72			
Himachal Pradesh			
Jammu & Kashmir			
Punjab	117.56			
Rajasthan	213.20			
Uttar Pradesh			
Central Sector	420.00			
SUB-TOTAL	823.48			
Gujarat	169.50			
Madhya Pradesh	210.00			
Maharashtra	120.00	..	540.00			
Central Sector	210.00			
SUB-TOTAL	120.00	..	1129.50			
Bihar	100.00			
Orissa	110.00			
West Bengal	270.00			
D.V.C.			
A & N Islands	(+)0.12			
Sikkim			
Central Sector			
SUB-TOTAL	490.12			
Andhra Pradesh	437.50			
Karnataka	135.00			
Tamil Nadu	(+)0.12			
Lakshadweep	(+)0.12			
SUB-TOTAL	512.62			
Assam	1.41			
Manipur			
Meghalaya			
Nagaland			
Tripura	0.10			
Arunachal Pradesh	1.15			
Mizoram	(-)0.20			
SUB-TOTAL	2.46			
TOTAL (ALL INDIA)	120.00	..	3,018.18			
	TOTAL	Hydro	Steam	Diesel	Gas	Nuclear
Gross Addition	3,074.37	883.05	2,070.00	1.32	120.00	..
Deletion/Retirement Reporting	(-)56.52	..	(-)53.00	(-)3.52
Differences	(+)0.33	(+)0.33
Net Additions	3,018.18	883.05	2,017.00	(-)1.87	120.00	..

TABLE No. 15—Contd.

Note :—

- (A) Upgrading of 4 units of shanon Hydro Station by 3.00 M.W. each i.e. uprated from 12.00 to 15.00 M.W. & deletion of 3.52 M.W. at Nakoder Diesel Power Station in Punjab.
- (B) Deletion of 37.50 M.W. at Ahmedabad Electricity Co. and 3.00 M.W. at Kandla Steam Power Station in Gujarat.
- (C) Deletion of 12.50 M.W. at Ramagundam 'A' Steam Power Station in Andhra Pradesh.
- (D) Addition of 1.00 M.W. at different Micro Hydel Power Station in Assam & (+) 0.41 M.W. as reporting difference in Capacity of Diesel Power Houses in Assam.
- (E) (+) 0.10 M.W. is addition in Diesel Capacity in Tripura at Agartala.
- (F) (÷) 1.10 M.W. is addition in Diesel Capacity & 0.05 M.W. addition in Hydro Capacity in Arunachal Pradesh for which detail is not available.
- (G) (—) 0.20 MW. is reporting difference in Diesel Capacity in Mizoram.
- (H) Addition of 0.05 M.W. at East Bay Katchal and 0.07 M.W. at Little Andaman Diesel Power Houses in A & N Islands.
- (I) (+) 0.12 M.W. Addition in Diesel Capacity is reporting difference in Lakshadweep.

TABLE NO. 16

Classification of undertakings* Capacitywise as on 31-3-1983

Range of installed capacity (MW)	No. of Undertakings	Aggregate installed capacity of the group (MW)	% to Total installed capacity	Energy generated by the group (GWH)	% to Total Generation
Upto 1.00	2	0.34	Neg.	0.21	Neg.
Over 1.00 and upto 2.00	1	2.00	0.01	0.05	Neg.
Over 2.00 and upto 5.00	1	2.08	0.01	2.20	..
Over 5.00 and upto 10.00	4	28.75	0.08	42.72	0.03
Over 10.00 and upto 15.00	1	12.42	0.03	20.14	0.01
Over 15.00 and upto 25.00	4	74.76	0.21	156.80	0.12
Over 25.00 and upto 50.00 . . . . .	..	..	..	..	..
Over 50.00 and upto 100.00	2	168.00	0.47	361.53	0.28
Over 100.00 and upto 500.00	13	3,482.60	9.85	11,717.32	9.00
Above 500.00	20	31,592.32	89.34	117,962.61	90.56
TOTAL	48	35,363.27	100.00	130,263.58	100.00

Neg.—Negligible.

*—Generating.

TABLE NO. 17
Classification of power stations capacitywise as on 31-3-1983

Range of installed Station Capacity	No. of generating Stations	Installed capacity group Total (MW)	Percentage of total capacity
<i>Hydro Station</i>			
Upto 100 KW	11	0.62	Neg.
Over 100 KW upto 1.00 MW	34	15.27	0.12
Over 1.00 MW upto 2.00 MW	13	20.02	0.15
Over 2.00 MW upto 5.00 MW	10	34.25	0.26
Over 5.00 MW upto 10.00 MW	5	47.30	0.36
Over 10.00 MW upto 15.00 MW	3	38.20	0.29
Over 15.00 MW upto 25.00 MW	10	204.10	1.56
Over 25.00 MW upto 50.00 MW	27	978.85	7.50
Over 50.00 MW upto 100.00 MW	22	1,511.50	11.58
Over 100.00 MW upto 500.00 MW	27	6,144.75	47.07
Above 500.00 MW	6	4,061.00	31.11
TOTAL	168	13,055.86	100.00
<i>Steam Station</i>			
Upto 100 KW	..	..	..
Over 100 KW upto 1.00 MW	1	0.75	Neg.
Over 1.00 MW upto 2.00 MW	2	3.65	0.02
Over 2.00 MW upto 5.00 MW	3	12.00	0.06
Over 5.00 MW upto 10.00 MW	8	68.48	0.33
Over 10.00 MW upto 15.00 MW	10	140.50	0.68
Over 15.00 MW upto 25.00 MW	6	123.20	0.60
Over 25.00 MW upto 50.00 MW	6	193.60	0.93
Over 50.00 MW upto 100.00 MW	14	1,101.00	5.32
Over 100.00 MW upto 500.00 MW	40	11,125.00	53.71
Above 500.00 MW	12	7,944.00	38.35
TOTAL	102	20,712.18	100.00

TABLE NO. 17—Contd.

Range of Installed Station Capacity	Energy generated by the group (GWH)	Generation % of total	Kwh/Kw@
<i>Hydro Station</i>			
Upto 100 KW	1.43	Neg.	2,306
Over 100 KW upto 1.00 MW	32.96	0.07	2158
Over 1.00 MW upto 2.00 MW	33.78	0.07	1,687
Over 2.00 MW upto 5.00 MW	131.91	0.27	3,851
Over 5.00 MW upto 10.00 MW	144.48	0.30	3,054
Over 10.00 MW upto 15.00 MW	152.44	0.31	3,990
Over 15.00 MW upto 25.00 MW	695.14	1.44	3,406
Over 25.00 MW upto 50.00 MW	3,012.02	6.23	3,077
Over 50.00 MW upto 100.00 MW	5,645.21	11.67	3,735
Over 100.00 MW upto 500.00 MW	19,892.32	41.12	3,237
Above 500.00 MW	18,631.69	38.62	4,588
TOTAL	48,373.38	100.00	3,705
<i>Steam Station</i>			
Upto 100 KW	..	..	..
Over 100 KW upto 1.00 MW	..	..	..
Over 1.00 MW upto 2.00 MW	1.61	Neg.	441
Over 2.00 MW upto 5.00 MW	0.95	Neg.	79
Over 5.00 MW upto 10.00 MW	83.67	0.11	1,222
Over 10.00 MW upto 15.00 MW	150.05	0.19	1,068
Over 15.00 MW upto 25.00 MW	223.93	0.29	1,817
Over 25.00 MW upto 50.00 MW	691.15	0.89	3,570
Over 50.00 MW upto 100.00 MW	4,266.92	5.47	3,875
Over 100.00 MW upto 500.00 MW	44,447.81	57.05	3,995
Above 500.00 MW	28,047.72	36.00	3,531
TOTAL	77,913.81	100.00	3,762

@The figures given under this table indicate the generation in Kwh during the year per KW of installed capacity at the end of year.

TABLE No. 18

Classification of sets prime movers-wise-capacity-wise as on 31-3-1983

Range of Installed Capacity of Sets (MW)	HYDRO			STEAM		
	No. of sets	Installed capacity (MW)	% to total	No. of sets	Installed capacity (MW)	% to total
Upto 100 KW	55	4.28	0.03	..	..	..
Over 100 KW and upto 1.00 MW	110	42.08	0.32	10	8.40	0.04
Over 1.00 and upto 2.00	11	16.80	0.13	10	15.88	0.08
Over 2.00 and upto 5.00	40	158.50	1.21	47	180.10	0.87
Over 5.00 and upto 10.00	59	483.80	3.71	19	152.95	0.74
Over 10.00 and upto 20.00	76	1,113.15	8.53	36	564.75	2.73
Over 20.00 and upto 30.00	37	929.25	7.12	30	900.00	4.34
Over 30.00 and upto 50.00	54	2,219.00	16.99	27	1,318.60	6.37
Over 50.00 and upto 100.00	71	5,269.00	40.36	63	4,441.50	21.44
Over 100.00 and upto 200.00	21	2,820.00	21.60	60	7,880.00	38.04
Above 200.00	..	..	..	25	5,250.00	25.35
TOTAL	534	13,055.86	100.00	327	20,712.18	100.00

TABLE No. 18—Contd.

Range of Installed Capacity of Sets (MW)	GAS			NUCLEAR		
	No. of Sets	Installed capacity (MW)	% to Total	No. of Sets	Installed capacity (MW)	% to Total
Upto 1.00	..	..	..	..	..	..
Over 1.00 and upto 5.00	7	21.00	3.76	..	..	..
Over 5.00 and upto 10.00	2	20.00	3.58	..	..	..
Over 10.00 and upto 20.00	9	155.00	27.73	..	..	..
Over 20.00 and upto 30.00	5	123.00	22.00	..	..	..
Over 30.00 and upto 50.00	..	..	..	..	..	..
Over 50.00 and upto 100.00	4	240.00	42.93	..	..	..
Over 100.00 and upto 200.00	..	..	..	..	..	..
Above 200.00	..	..	..	4	860.00	100.00
TOTAL	27	559.00	100.00	4	860.00	100.00

Note :—Setwise classification of Diesel Power Houses not given due to non-availability of setwise details in certain cases.

TABLE NO. 19
 Classification of sets-voltage-wise as on 31-3-1983

Voltage of Generation	Type of Primemover	No. of Sets	Aggregate Capacity (MW)
<i>Alternating Current</i>			
1. 33 KW	STEAM	10	330.00
2. 10.5 KV to 15.75 KV	HYDRO	318	12,659.40
	STEAM	242	19,859.70
	GAS	27	559.00
	NUCLEAR	4	860.00
3. 5 KV to 6.6 KV	HYDRO	45	284.00
	STEAM	41	434.11
4. 2 KV to 3.9 KV	HYDRO	55	86.91
	STEAM	34	88.37
5. 400 Voltage to 460 Voltage.	HYDRO	116	25.55
TOTAL	HYDRO	534	13,055.86
	STEAM	327	20,712.18
	GAS	27	559.00
	NUCLEAR	4	860.00

SECTION III
GENERATION (UTILITIES)

GENERATION

The All India gross electricity generation by the public utilities was 130263.58 GWH during the year 1982-83 as compared to 122101.43 GWH during 1981-82 thereby registering an increase of 6.68% in electricity production.

Electricity generation from Steam Generating Stations continued to form the Major proportion of total electricity production. The relative percentages of generation from Steam, Hydro, Diesel, Gas and Nuclear Power Stations were 59.81%, 37.13%, 0.04%, 1.47% and 1.55% respectively during the year 1982-83.

There were 102 steam stations and 168 Hydro Stations existing in the country as on 31st March, 1983 generating 77913.81 GWH and 48373.38 GWH respectively. B.B.M.B. complex the biggest of all the systems resulted in the maximum electricity production of 10955.52 GWH during the year.

Beside electricity generation by the Public Utilities, during the year under review captive plants of selected industries produced 9989.00 GWH comprising 8497.05 GWH from Steam, 10.00 GWH from Hydro, 1406.27 GWH from Diesel and 75.68 GWH from Gas Turbine plants respectively. Apart from the above, Electricity Generation from captive plants of Railways was 46.71 GWH which comprised of 31.56 GWH from Steam and 15.15 GWH from Diesel plants respectively.

To sum up, total electricity production in the country including that from captive plants during the year 1982-83 was 140299.29 GWH as compared to 131125.12 GWH during the year 1981-82 recording an increase of 7.00%.

The tables in this section depict the salient features of Electricity Generation in various sectors and by different types of primemovers etc.

TABLE NO. 20

Gross Energy Generation in the Country
(UTILITIES AND NON-UTILITIES)

Prinemoverwise During the Year 1982-83

(In GWH)

Category	Year	Total	Hydro	Steam
Utilities	1981-82	122101.43	49564.93	68747.10
	1982-83	130263.58	48373.38	77913.81
	%increase	6.68	(-)2.40	13.33
Non-Utilities Selected Industries(I)	1981-82	8978.96	18.24	7737.33
	1982-83	9989.00	10.00	8497.05
	%increase	11.25	(-)45.18	9.82
Railways(II)	1981-82	44.73	..	31.73
	1982-83	46.71	..	31.56
	%increase	4.43	..	(-) 0.54
Total Non-Utilities(I+II)	1981-82	9023.69	18.24	7769.06
	1982-83	10035.71	10.00	8528.61
	%increase	11.22	(-)45.18	9.78
All India Gross Generation (Utilities + Non Utilities)	1981-82	131125.12	49583.17	76515.16
	1982-83	140299.29	48383.38	86442.42
	%increase	7.00	(-) 2.42	12.97

TABLE NO. 20—(CONTD.)

(In GWH)

Category	Year	Diesel	Gas	Nuclear
Utilities	1981-82	69.25	699.26	3020.89
	1982-83	44.46	1909.99	2021.94
	%increase	(-)35.80	173.14	(-)33.07
Selected Industries(I)	1981-82	1129.15	94.24	..
	1982-83	1406.27	75.68	..
	%increase	24.54	(-)19.69	..
Railways(II)	1981-82	13.00	..	..
	1982-83	15.15	..	..
	%increase	16.54	..	..
TOTAL Non-Utilities(I) + (II)	1981-82	1142.15	94.24	..
	1982-83	1421.42	75.68	..
	%increase	24.45	(-)19.69	..
All India Gross Generation (Utilities + Non-Utilities)	1981-82	1211.40	793.50	3020.89
	1982-83	1465.88	1985.67	2021.94
	%increase	21.01	150.24	(-)33.07

Note —GWH- Million KWH

Table No. 21

All India Electricity Generation (utilities only) ownership-wise and Primemoverwise during 1982-83

Type of Primemover and Ownership	Generation (Gross) (GWH)	% to all India Total	% increase in generation over the Previous year
HYDRO			
<i>Public Sector</i>			
(a) State Electricity Board	40,108.36	30.79	(-) 4.43
(b) Elec. Deptt./Govt. Undertaking/Corpn./ Central Sector	7,020.02	5.39	12.18
(c) Municipalities . . . . .	..	..	..
SUB-TOTAL	47,126.38	36.18	(-) 2.27
<i>Private Sector</i>			
Companies	1,245.00	0.95	(-) 7.23
TOTAL (Hydro)	48,373.38	37.13	(-) 2.40
STEAM			
<i>Public Sector</i>			
(a) State Electricity Boards	56,103.24	43.06	12.92
(b) Elec. Deptt./Govt. Undertakings/Corpn./ Central Sector	14,975.51	11.50	20.95
(c) Municipalities	1,076.09	0.83	(-) 3.23
SUB-TOTAL	72,154.84	55.39	14.21
<i>Private Sector</i>			
Companies	5,758.97	4.42	3.38
TOTAL (steam)	77,913.81	59.81	13.33
DIESEL			
<i>Public Sector</i>			
(a) State Elec. Boards	6.47	0.01	(-) 79.74
(b) Elec. Deptt./Govt. Undertakings/Corpn./ Central Sector	36.48	0.03	2.67
(c) Municipalities	1.30	Neg.	(-) 2.99
SUB-TOTAL	44.25	0.04	(-) 35.68
<i>Private Sector</i>			
Companies	0.21	Neg.	(-) 53.33
TOTAL (Diesel)	44.46	0.04	(-) 30.85

TABLE NO. 21—(Contd.)

Sl. No.	Type of Primemover and ownership	Generation (Gross) (GWH)	% to all India Total	% increase in Generation over Previous year
IV. GAS TURBINES—PUBLIC SECTOR				
	(a) State Electricity Board	1,909.99	1.47	173.14
	(b) Electricity Deptt./Govt. Undertakings/Corpn./ Central Sector . . . . .	..	..	..
	(c) Municipalities . . . . .	..	..	..
	Sub-TOTAL	1,909.99	1.47	173.14
	<i>Private Sector</i>			
	Companies . . . . .	..	..	..
	TOTAL (Gas)	1,909.99	1.47	173.14
V. NUCLEAR—PUBLIC SECTOR				
	(a) State Electricity Boards. . . . .	..	..	..
	(b) Electricity Deptt./Govt. Undertakings/Corpn./ Central Sector	2,021.94	1.55	(—)33.07
	(c) Municipalities . . . . .	..	..	..
	Sub-TOTAL	2,021.94	1.55	(—)33.07
	<i>Private Sector</i>			
	Companies . . . . .	..	..	..
	TOTAL (Nuclear)	2,021.94	1.55	(—)33.07
VI. GRAND TOTAL (I TO V)				
	<i>Public Sector</i>			
	(a) State Electricity Boards (18 Nos.)	98,128.06	75.33	6.22
	(b) Electricity Deptts./Govt. Undertakings/Corpn./ Central Sector (23 Nos.)	24,053.95	18.47	10.87
	(c) Municipalities (14 Nos.)	1,077.39	0.83	(—) 3.23
	Sub-TOTAL (55 Nos.)	1,23,259.40	94.63	7.01
	<i>Private Sector</i>			
	Companies (38 Nos.)	7,044.18	5.37	1.32
	TOTAL (All India) (93 Nos.)	1,30,263.58	100.00	6.68

NOTE :—Figures within brackets show number of undertakings.

Table No. 22
All India Gross Energy Generation (Utilities Only)
Regionwise/Statewise during 1982-83

(in GWH)

Region	State/U. Ts.	Energy Generation		
		1982-83	1981-82	%increase
<i>Northern Region</i>	Haryana	4,910.57	4,807.55	2.14
	Himachal Pradesh	541.46	431.67	25.43
	Jammu & Kashmir	939.03	784.74	19.66
	Punjab	7,776.64	6,996.80	11.15
	Rajasthan	3,597.02	3,546.16	1.43
	Uttar Pradesh	12,585.14	11,348.03	10.90
	Chandigarh	0.05	0.24	(-)79.17
	Delhi	1,077.39	1,113.29	(-)5.29
	Central Sector	5,649.52	3,554.69	58.93
	SUB-TOTAL	37,076.82	32,583.17	13.79
<i>Western Region</i>	Gujarat	10,777.56	10,207.44	5.58
	Madhya Pradesh	7,680.98	6,620.41	16.02
	Maharashtra	20,138.36	18,682.02	7.79
	Goa, Daman & Diu . . . . .	..	..	..
	D. & N. Haveli . . . . .	..	..	..
	Central Sector	1,591.04	2,139.56	(-)25.64
	SUB-TOTAL	40,187.94	37,649.43	6.74
<i>Southern Region</i>	Andhra Pradesh	10,255.05	9,080.78	12.93
	Karnataka	7,721.43	7,187.96	7.42
	Kerala	4,487.73	5,533.30	(-)18.90
	Tamil Nadu	7,382.37	7,831.88	(-) 5.76
	Pondicherry . . . . .	..	..	..
	Lakshadweep	2.20	1.70	29.41
	Central Sector	3,832.70	3,390.65	13.04
	SUB-TOTAL	33,681.48	33,026.27	1.98
<i>Eastern Region</i>	Bihar	2,753.30	2,582.72	6.60
	Orissa	3,114.72	3,367.46	(-)5.43
	West Bengal	5,937.78	5,646.64	5.16
	D.V.C.	6,008.48	6,001.14	0.12
	A. & N. Islands	12.35	11.72	5.37
	Sikkim	25.43	30.67	(-)17.09
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	17,922.06	17,640.35	1.60
<i>North-Eastern Region</i>	Assam	896.24	741.16	20.92
	Manipur	12.60	18.26	(-)31.00
	Meghalaya	406.04	369.66	9.84
	Nagaland	1.18	1.41	(-)16.31
	Tripura	53.42	51.40	3.93
	Arunachal Pradesh	20.14	17.20	17.09
	Mizoram	5.66	3.12	81.41
		SUB-TOTAL	1,395.28	1,202.21	16.06
	GRAND TOTAL (All India)	1,30,263.58	122,101.43	6.68

NOTE :— Generation of jointly owned projects have been shown divided between the partner states as per their theoretical shares.

GWH= Million KWH

TABLE NO. 23

Gross Energy Generation (Utilities Only)
Ownershipwise-Regionwise/Statewise During 1982-83

(in GWH)

Region	State/U. ts.	Public Sector		
		1982-83	State Electricity Board 1981-82	%increase
<i>Northern Region</i>	Haryana	4,910.57	4,807.55	2.14
	Himachal Pradesh	541.46	431.67	25.43
	Jammu & Kashmir	939.03	784.74	19.66
	Punjab	7,776.64	6,996.80	11.15
	Rajasthan	3,597.02	3,546.16	1.43
	Uttar Pradesh	12,585.14	11,348.03	10.90
	Chandigarh . . . . .	..	..	..
	Delhi . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	30,349.86	27,914.95	8.72
<i>Western Region</i>	Gujarat	8,958.80	8,605.30	4.11
	Madhya Pradesh	7,680.98	6,620.41	16.20
	Maharashtra	16,722.36	15,105.02	10.71
	Goa, Daman & Diu . . . . .	..	..	..
	D. & N. Haveli . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	33,362.14	30,330.73	9.99
<i>Southern Region</i>	Andhra Pradesh	9,619.50	8,386.70	10.71
	Karnataka	2,589.98	2,377.79	8.92
	Kerala	4,487.73	5,533.30	(-) 18.90
	Tamil Nadu	7,382.37	7,831.88	(-) 5.76
	Pondicherry . . . . .	..	..	..
	Lakshadweep . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	24,079.58	24,129.67	(-) 0.21
<i>Eastern Region</i>	Bihar	2,753.30	2,571.71	6.60
	Orissa	2,994.90	3,159.45	(-) 5.21
	West Bengal	3,286.00	3,161.80	3.93
	D.V.C. . . . .	..	..	..
	A. & N. Islands . . . . .	..	..	..
	Sikkim . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
		SUB-TOTAL	9,034.20	8,892.96	1.59
<i>North Eastern Region</i>	Assam	896.24	741.16	20.92
	Manipur . . . . .	..	..	..
	Meghalaya	406.04	369.66	9.84
	Nagaland . . . . .	..	..	..
	Tripura . . . . .	..	..	..
	Arunachal Pradesh . . . . .	..	..	..
	Mizoram . . . . .	..	..	..
		SUB-TOTAL	1,302.28	1,110.82	17.24
	TOTAL (ALL INDIA)	98,128.06	92,379.13	6.22

Note:—GWH—Million Kwh

Table No. 23—Contd.

State/U. ts.	Public Sector		
	Electricity Deptt./Govt. Undertaking/Corporation/Central Sector		
	1982-83	1981-82	% increase
Haryana	..	..	..
Himachal Pradesh	..	..	..
Jammu & Kashmir	..	..	..
Punjab	..	..	..
Rajasthan	..	..	..
Uttar Pradesh	..	..	..
Chandigarh	0.05	0.24	79.17
Delhi	..	..	..
Central Sector	5,649.52	3,554.69	58.93
SUB-TOTAL	5,649.47	3,554.93	58.92
Gujarat	..	..	..
Madhya Pradesh	..	..	..
Maharashtra	..	..	..
Goa, Daman & Diu	..	..	..
Dadra & Nagar Haveli	..	..	..
Central Sector	1,591.04	2,139.56	(-)25.64
SUB-TOTAL	1,591.04	2,139.56	(-)25.64
Andhra Pradesh	635.55	694.08	(-)8.43
Karnataka	5,131.45	4,810.17	6.68
Kerala	..	..	..
Tamil Nadu	..	..	..
Pondicherry	..	..	..
Lakshadweep	2.20	1.70	29.41
Central Sector	3872.70	3390.65	13.04
SUB-TOTAL	9,601.90	8,896.60	7.93
Bihar*	..	11.01	..
Orissa	189.82	208.01	(-)8.75
West Bengal	882.36	750.89	17.51
D.V.C.	6,008.48	6,001.14	0.12
A. & N. Islands	12.35	11.72	5.37
Sikkim	25.43	30.67	(-)17.09
Central Sector	..	..	..
SUB-TOTAL	7,118.44	7,013.44	1.50
Assam	..	..	..
Manipur	12.60	18.26	(-)31.00
Meghalaya	..	..	..
Nagaland	1.18	1.41	(-)16.31
Tripura	53.42	51.40	3.93
Arunachal Pradesh	20.14	17.20	17.09
Mizoram	5.66	3.12	81.41
SUB-TOTAL	93.00	91.39	1.76
TOTAL (ALL INDIA)	24,053.95	21,695.92	10.87

*—Generation from Kosi Power Station included in SEB.

Table No. 23—Contd.

State/U. ts.	Public Sector		
	Municipalities		
	1982-83	1981-82	%increase
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh
Delhi	1,077.39	1,113.29	(-)5.23
Central Sector
SUB-TOTAL	1,077.39	1,113.29	(-) 5.23
Gujarat
Madhya Pradesh
Maharashtra
Goa, Daman & Diu
Dadra & Nagar Haveli
Central Sector
SUB-TOTAL
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
SUB-TOTAL
Bihar
Orissa
West Bengal
D. V. C.
A. & N. Islands
Central Sector
SUB-TOTAL
Assam
Manipur
Meghalaya
Tripura
Arunachal Pradesh
Mizoram
Nagaland
SUB-TOTAL
TOTAL (ALL INDIA)	1,077.39	1,113.29	(-)5.23

Table No. 23—Contd.

State/U. ts.	Private		
	Companies		
	1982-83	1981-82	% increase
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh
Delhi
Central Sector
SUB-TOTAL
Gujarat	1,818.76	1,602.14	13.52
Madhya Pradesh
Maharashtra	3,416.00	3,577.00	(-)-4.50
Goa, Daman & Diu
D & N Haveli
Central Sector
SUB-TOTAL	5,234.76	5,179.14	1.07
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
SUB-TOTAL
Bihar
Orissa
West Bengal	1,769.42	1,733.95	2.05
D. V. C.
A. & N. Islands
Sikkim
Central Sector
SUB-TOTAL	1,769.42	1,733.95	2.05
Assam
Manipur
Meghalaya
Nagaland
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL
TOTAL (ALL INDIA)	7,004.18	6,913.09	1.32

NOTE :—Generation of jointly owned projects have been shown divided between the partner states as per their the critically shares.

Table No. 24
Cross Energy Generation (Utilities only)
 Prime Moverwise-Regionwise/Statewise during 1982-83

(In GWH)

Region	State/U. ts.	Hydro		
		1982-83	1981-82	% Increase
<i>Northern Region</i>	Haryana	3,412.56	3,233.72	5.53
	Himachal Pradesh	541.42	431.63	25.44
	Jammu & Kashmir	934.29	768.02	21.65
	Punjab	5,809.94	5,398.66	7.62
	Rajasthan	2,841.16	2,835.71	0.19
	Uttar Pradesh	4,175.46	3,835.61	8.86
	Chandigarh . . . . .	..	..	..
	Delhi . . . . .	..	..	..
	Central Sector	821.03	214.00	283.66
	SUB-TOTAL	18,535.86	16,717.35	10.88
<i>Western Region</i>	Gujarat	410.43	1,139.14	(-)63.79
	Madhya Pradesh	417.03	488.24	(-)14.59
	Maharashtra	5,723.02	6,333.38	(-)9.64
	Goa Daman & Diu . . . . .	..	..	..
	D & N. Haveli . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	6,550.48	7,960.76	(-)17.72
<i>Southern Region</i>	Andhra Pradesh	4,692.65	3,987.88	17.67
	Karnataka	7,721.43	7,187.96	7.42
	Kerala	4,487.73	5,533.30	(-)18.90
	Tamil Nadu	3,344.80	4,657.76	(-)18.19
	Pondicherry . . . . .	..	..	..
	Lakshadweep . . . . .	..	..	..
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	20,246.61	21,366.90	(-)5.24
<i>Eastern Region</i>	Bihar	142.13	172.65	(-)17.60
	Orissa	2,158.23	2,581.71	(-)16.40
	West Bengal	92.45	75.62	22.26
	D.V.C.	147.19	221.82	(-)33.64
	A. & N. Islands . . . . .	..	..	..
	Sikkim	22.44	30.58	(-)16.62
	Central Sector . . . . .	..	..	..
	SUB-TOTAL	2,562.44	3,082.38	(-)16.33
<i>North Eastern Region</i>	Assam . . . . .	..	..	..
	Manipur	1.79	1.70	5.29
	Meghalaya	405.45	369.65	9.68
	Nagaland	0.87	0.87	..
	Tripura	52.06	50.25	3.09
	Arunachal Pradesh	17.82	15.07	18.25
	Mizoram . . . . .	..	..	..
	SUB-TOTAL	477.99	437.54	9.24
	TOTAL (ALL INDIA)	48,373.38	49,564.93	(-) 2.40

Table No. 24—(Contd.)

State/Uts.	Steam		
	1982-83	1981-82	% increase
Haryana	1,498.01	1,573.83	(-) 4.82
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir	4.67	16.54	71.77
Punjab	1,966.58	1,593.00	23.45
Rajasthan	755.80	710.22	6.42
Uttar Pradesh	8,409.68	7,512.14	11.95
Chandigarh . . . . .	..	..	..
Delhi	1,076.09	1,111.95	(-) 5.23
Central Sector	4,276.85	2,283.52	87.29
SUB-TOTAL	17,987.68	14,801.24	21.53
Gujarat	10,283.33	9,046.20	13.68
Madhya Pradesh	7,263.95	6,132.17	18.46
Maharashtra	13,353.66	12,346.71	8.16
Goa, Daman & Diu . . . . .	..	..	..
D. & N. Haveli . . . . .	..	..	..
Central Sector	120.74	175.84	(-)31.34
SUB-TOTAL	31,021.68	27,700.92	11.99
Andhra Pradesh	5,562.40	5,092.90	9.22
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu	4,037.57	3,174.12	27.20
Pondicherry . . . . .	..	..	..
Lakshadweep . . . . .	..	..	..
Central Sector	3,832.70	3,390.65	13.04
SUB-TOTAL	13,432.67	11,657.67	15.23
Bihar	2,610.41	2,408.51	8.38
Orissa	1,026.49	785.75	30.64
West Bengal	5,627.97	5,382.23	4.57
D.V.C.	5,861.29	5,779.32	1.42
A. & N. Islands	1.57	1.72	(-) 8.72
Sikkim . . . . .	..	..	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	15,127.73	14,357.53	5.36
Assam	344.05	229.74	49.76
Manipur . . . . .	..	..	..
Meghalaya . . . . .	..	..	..
Nagaland . . . . .	..	..	..
Tripura . . . . .	..	..	..
Arunachal Pradesh . . . . .	..	..	..
Mizoram . . . . .	..	..	..
SUB-TOTAL	344.05	229.74	49.76
TOTAL (ALL INDIA)	77,913.81	68,747.10	13.33

Table No. 24—(Contd.)

State/Uts.	Diesel		
	1982—83	1981—82	% increase
Haryana . . . . .	..	..	..
Himachal Pradesh	0.04	0.04	..
Jammu & Kashmir	0.07	0.14	(—)50.00
Punjab	0.12	5.14	(—)97.67
Rajasthan	0.06	0.23	(—)73.91
Uttar Pradesh . . . . .	..	..	..
Chandigarh	0.05	0.24	(—)79.17
Delhi	1.30	1.34	(—)2.99
Central Sector . . . . .	..	..	..
SUB-TOTAL	1.64	7.13	(—)77.00
Gujarat	0.09	0.10	(—)10.00
Madhya Pradesh . . . . .	..	..	..
Maharashtra . . . . .	..	..	..
Goa, Daman & Diu . . . . .	..	..	..
D. & N. Haveli . . . . .	..	..	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	0.09	0.10	(—)10.00
Andhra Pradesh . . . . .	..	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
Pondicherry . . . . .	..	..	..
Lakshadweep	2.20	1.70	29.41
Central Sector . . . . .	..	..	..
SUB-TOTAL	2.20	1.70	29.41
Bihar	0.76	1.56	(—)51.28
Orissa . . . . .	..	..	..
West Bengal	4.95	10.05	(—)50.75
D. V. C. . . . .	..	..	..
A. & N. Islands	10.78	10.00	7.80
Sikkim	2.99	0.09	3,222.22
Central Sector . . . . .	..	..	..
SUB-TOTAL	19.48	21.70	(—)10.23
Assam . . . . .	..	15.11	..
Manipur	10.81	16.56	(—)35.72
Meghalaya	0.59	0.01	5,800.00
Nagaland	0.31	0.54	(—)42.59)
Tripura	1.36	1.15	18.26
Arunachal Pradesh	2.32	2.13	8.92
Mizoram	5.66	3.12	81.41
SUB-TOTAL	21.05	38.62	(—)45.49
TOTAL (ALL INDIA)	44.46	69.25	(—)35.80

TABLE No. 24—Contd..

State/Uts.	Gas		
	1982-83	1981-82	% increase
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh	0.28	..
Chandigarh
Delhi
Central Sector
SUB-TOTAL	0.28	..
Gujarat	83.71	22.00	280.50
Madhya Pradesh
Maharashtra	1,061.68	1.93	54,909.33
Goa, Daman & Diu
Dadra & Nagar Haveli
Central Sector
SUB-TOTAL	1,145.39	23.93	4,686.42
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
SUB-TOTAL
Bihar
Orissa
West Bengal	212.41	178.74	18.84
D. V. C.
A. & N. Island
Sikkim
Central Sector
SUB-TOTAL	212.41	178.74	18.84
Assam	552.19	496.31	11.26
Manipur
Meghalaya
Nagaland
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL	552.19	496.31	11.26
TOTAL (ALL INDIA)	1,909.99	699.26	173.14

TABLE NO. 24—Contd.

State/Uts.	Nuclear		
	1982-83	1981-82	% Increase
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh
Delhi
Central Sector	551.64	1,057.17	(—) 47.82
SUB-TOTAL	551.64	1,057.17	(—) 47.82
Gujarat
Madhya Pradesh
Maharashtra
Goa, Daman & Diu
D & N. Haveli
Central Sector	1,470.30	1,963.72	(—) 25.13
SUB-TOTAL	1,470.30	1,963.72	(—) 25.13
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
SUB-TOTAL
Bihar
Orissa
West Bengal
D.V.C.
A. & N. Island
Sikkim
SUB-TOTAL
Assam
Manipur
Meghalaya
Nagaland
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL
TOTAL (ALL INDIA)	2,021.94	3,020.89	(—) 33.07

NOTE —Generation of jointly owned projects have been shown divided between the partner States as per their theoretical shares.

TABLE NO. 25

Gross energy generation by state Electricity Boards primemoverwise during 1982-83

(GWH)

Region	Name of the Board	Total		
		1982-83	1981-82	% Increase
<i>Northern Region</i>	Haryana	4,910.57	4,807.55	2.14
	Himachal Pradesh	541.46	431.67	25.43
	Jammu & Kashmir	939.03	784.74	19.66
	Punjab	7,776.64	6,996.80	11.15
	Rajasthan	3,597.02	3,546.16	1.43
	Uttar Pradesh	12,585.14	11,348.03	10.90
	SUB-TOTAL	30,349.86	27,914.96	8.72
<i>Western Region</i>	Gujarat	8,958.80	8,605.30	4.11
	Madhya Pradesh	7,680.98	6,620.41	16.20
	Maharashtra	16,722.36	15,105.02	10.71
	SUB-TOTAL	33,362.14	30,330.73	9.99
<i>Southern Region</i>	Andhra Pradesh	9,619.50	8,386.70	10.71
	Karnataka	2,589.98	2,377.79	8.92
	Kerala	4,487.73	5,533.30	(-)18.90
	Tamil Nadu	7,382.37	7,831.88	(-) 5.76
	SUB-TOTAL	24,079.58	24,129.67	(-)0.21
<i>Eastern Region</i>	Bihar	2,753.30	2,571.71	6.60
	Orissa	2,994.90	3,159.45	(-)5.21
	West Bengal	3,286.00	3,161.80	3.93
	SUB-TOTAL	9,034.20	8,892.96	1.59
<i>North Eastern Region</i>	Assam	896.24	741.16	20.92
	Meghalaya	406.04	369.66	9.84
	SUB-TOTAL	1,302.28	1,110.82	17.24
	TOTAL (ALL BOARDS)	98,128.06	92,379.13	6.22

TABLE No. 25—Contd.

Name of the Board	Hydro		
	1982—83	1981—82	% Increase
Haryana	3,412.56	3,233.72	5.53
Himachal Pradesh	541.42	431.63	25.44
Jammu & Kashmir	934.29	768.02	21.65
Punjab	5809.94	5,398.66	7.62
Rajasthan	2,851.16	2835.71	0.19
Uttar Pradesh	4,175.46	3,835.61	8.86
SUB-TOTAL	17,714.83	16,503.35	7.34
Gujarat	410.43	1,139.14	(—)63.97
Madhya Pradesh	417.03	488.24	(—)14.59
Maharashtra	4,478.02	4,991.38	(—)10.29
SUB-TOTAL	5,305.48	6,618.76	(—)19.84
Andhra Pradesh	4,057.10	3,293.80	23.17
Karnataka	2,589.98	2,377.79	8.92
Kerala	4,487.73	5,533.30	18.90
Tamil Nadu	3,344.80	4,657.76	(—)18.19
SUB-TOTAL	14,479.61	15,862.65	(—)8.78
Bihar	142.13	161.64	(—)13.15
Orissa	1,968.41	2,373.70	(—)17.08
West Bengal	92.45	75.62	22.26
SUB-TOTAL	2,202.99	2,610.96	(—)15.63
Assam . . . . .	..	..	..
Meghalaya	405.45	369.65	9.68
SUB-TOTAL	405.45	369.65	9.68
TOTAL (ALB INDIA)	40,108.36	41,965.37	(—)4.43

TABLE NO. 25—Contd.

Name of the Board	Steam		
	1982—83	1981—82	% Increase
Haryana	1,498·01	1,573·83	(—)4·82
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir	4·67	16·58	(—)71·77
Punjab	1,966·58	1,593·00	23·45
Rajasthan	755·80	710·22	6·42
Uttar Pradesh	8,409·68	7,512·14	11·95
SUB-TOTAL	12,634·74	11,405·77	10·77
Gujarat	8464·66	7,444·14	13·71
Madhya Pradesh	7,263·95	6,132·17	18·46
Maharashtra	11,182·66	10,111·71	10·59
SUB-TOTAL	26911·27	23,688·02	13·61
Andhra Pradesh	5562·40	5,092·90	9·22
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu	4,037·57	3,174·12	27·20
SUB-TOTAL	9,599·97	8,267·02	16·12
Bihar	2,610·41	2,408·51	8·38
Orissa	1,026·49	785·75	30·64
West Bengal	2,976·31	2,897·76	2·71
SUB-TOTAL	6,613·21	6,092·02	8·55
Assam	344·05	229·74	49·76
Meghalaya . . . . .	..	..	..
SUB-TOTAL	344·05	229·74	49·76
TOTAL (ALL BOARDS)	56,103·24	49,682·57	12·92

TABLE No. 25—Contd.

GWH

Name of the Board	Diesel		
	1982-83	1981-82	% Increase
Haryana . . . . .	..	..	..
Himachal Pradesh	0.04	0.04	..
Jammu & Kashmir	0.07	0.14	(—)50.00
Punjab	0.12	5.14	(—)97.67
Rajasthan	0.06	0.23	(—)73.91
Uttar Pradesh . . . . .	..	..	..
SUB-TOTAL	0.29	5.55	(—)94.78
Gujarat . . . . .	..	0.02	..
Madhya Pradesh . . . . .	..	..	..
Maharashtra . . . . .	..	..	..
SUB-TOTAL . . . . .	..	0.02	..
Andhra Pradesh . . . . .	..	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
SUB-TOTAL . . . . .	..	..	..
Bihar	0.76	1.56	(—)51.28
Orissa . . . . .	..	..	..
West Bengal	4.83	9.68	(—)50.10
SUB-TOTAL	5.59	11.24	(—)50.27
Assam . . . . .	..	15.11	..
Meghalaya	0.59	0.01	5,800.00
SUB-TOTAL	0.59	15.12	(—)96.10
TOTAL (ALL BOARDS)	6.47	31.93	(—)20.93

TABLE No. 25--Contd.

Name of the Board	Gas		
	1982-83	1981-82	% Increase
Haryana . . . . .	..	..	..
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir . . . . .	..	..	..
Punjab . . . . .	..	..	..
Rajasthan . . . . .	..	..	..
Uttar Pradesh . . . . .	..	0.28	..
SUB-TOTAL . . . . .	..	0.28	..
Gujarat	83.71	22.00	280.50
Madhya Pradesh . . . . .	..	..	..
Maharashtra	1,061.68	1.93	54,909.33
SUB-TOTAL	1,145.39	23.93	4,686.42
Andhra Pradesh . . . . .	..	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
SUB-TOTAL . . . . .	..	..	..
Bihar . . . . .	..	..	..
Orissa . . . . .	..	..	..
West Bengal	212.41	178.74	18.84
SUB-TOTAL	212.41	178.74	18.84
Assam	552.19	496.31	11.26
Meghalaya . . . . .	..	..	..
SUB-TOTAL	552.19	496.31	11.26
TOTAL (ALL BOARDS)	1,909.99	699.26	173.14

Note:—There is no nuclear power station under any State Electricity Board.

TABLE NO. 26

Gross Energy Generation by Electricity Deptt., Govt. Undertakings, Central Sector, Municipalities and Private Sector—Prinemoverwise/Regionwise During

1982-83

GWH

Region	Ownership	Total		
		1982-83	1981-82	% Increase
I. Electricity Deptt./Govt. Undertaking/Corp./Central Sector				
<i>Northern Region</i>	Chandigarh	0.05	0.24	79.17
	Central Sector	5,649.52	3,554.69	58.93
<i>Western Region</i>	Central Sector	1,591.04	2,139.56	25.64
<i>Southern Region</i>	Andhra Pradesh	635.55	694.08	(-)-8.43
	Karnataka	5,131.45	4,810.17	6.68
	Lakshadweep	2.20	1.70	29.41
	Central Sector	3,832.70	3,390.65	13.04
<i>Eastern Region</i>	Bihar . . . .	..	11.01	..
	Orissa	189.82	208.01*	(-)-8.75
	Sikkim	25.43	30.67	(-)-17.09
	West Bengal	882.36	750.89	17.51
	D.V.C. . . .	6,008.48	6,001.14	0.12
	A. & N, Islands	12.35	11.72	5.37
	Central Sector . . . .	..	..	..
<i>North Eastern Region</i>	Manipur	12.60	18.26	(-)-31.00
	Nagaland	1.18	1.41	(-)-16.31
	Tripura	53.42	51.40	3.93
	Arunachal Pradesh	20.14	17.20	17.09
	Mizoram	5.66	3.12	81.41
	TOTAL (I)	24,053.95	21,695.92	10.87
II. Municipalities				
<i>Northern Region</i>	Delhi	1,077.39	1,113.29	(-)-5.23
<i>Western Region</i>	Gujarat . . . .	..	..	..
<i>Eastern Region</i>	West Bengal . . . .	..	..	..
	TOTAL (II)	1,077.39	1,113.29	(-)-5.23
III. Private Licensees				
<i>Western Region</i>	Gujarat	1,818.76	1,662.14	13.52
	Maharashtra	3,416.00	3,577.06	(-)-4.50
<i>Eastern Region</i>	West Bengal	1,769.42	1,733.95	2.05
	TOTAL (III)	7,004.18	6,913.09	1.32

NOTE : —*Excludes Balimela Project which has been taken over by Orissa State Electricity Board

TABLE No. 26—(Contd.)

Ownership	Hydro		
	1982-83	1981-82	% Increase
<i>Electricity Deptt./Govt. Undertakings/Corpn./Central Sector</i>			
<i>Northern Region</i>	Chandigarh	..	..
	Central Sector	821.03	14.00
<i>Western Region</i>	Central Sector	..	..
<i>Southern Region</i>	Andhra Pradesh	635.55	694.08
	Karnataka	5,131.45	4,810.17
	Lakshadweep	..	..
	Central Sector	..	..
<i>Eastern Region</i>	Bihar	..	11.01
	Orissa	189.82	208.01
	Sikkim	22.44	33.58
	West Bengal	..	..
	I & N Island	..	..
	D.V.C.	147.19	221.82
	Central Sector	..	..
<i>North Eastern Region</i>	Manipur	1.79	1.70
	Nagaland	0.87	0.87
	Tripura	52.06	50.25
	Arunachal Pradesh	17.82	15.07
	Mizoram	..	..
	TOTAL (I)	7,020.02	6,257.56
II. Municipalities			
<i>Northern Region</i>	Delhi	..	..
	TOTAL (II)	..	..
III. Private Licences			
<i>Western Region</i>	Gujarat	..	..
	Maharashtra	1,245.00	1,342.00
<i>Eastern Region</i>	West Bengal	..	..
	TOTAL (III)	1,245.00	1,342.00

TABLE NO. 26—(Contd.)

	Ownership	Steam		
		1982-83	1981-82	% Increase
<i>I. Electricity Deptt./Govt. Undertakings/Corpn./Central Sector</i>				
<i>Northern Region</i>	Chandigarh . . . . .	..	..	..
	Central Sector	4,276.85	2,283.52	87.29
<i>Western Region</i>	Central Sector	120.74	175.84	(—)31.34
<i>Southern Region</i>	Andhra Pradesh . . . . .	..	..	..
	Karnataka . . . . .	..	..	..
	Lakshadweep . . . . .	..	..	..
	Central Sector	3,832.70	3,390.65	13.04
<i>Eastern Region</i>	Bihar . . . . .	..	..	..
	Orissa . . . . .	..	..	..
	Sikkim . . . . .	..	..	..
	West Bengal]	882.36	750.89	17.51
	D.V.C.	5,861.29	5,779.32	1.42
	A & N Island	1.57	1.72	(—)18.72
	Central Sector . . . . .	..	..	..
<i>North Eastern Region</i>	Manipur . . . . .	..	..	..
	Nagaland . . . . .	..	..	..
	Tripura . . . . .	..	..	..
	Arunachal Pradesh . . . . .	..	..	..
	Mizoram . . . . .	..	..	..
	TOTAL (I)	14,975.51	12,381.94	20.95
<i>II. Municipalities</i>				
<i>Northern Region</i>	Delhi	1,076.09	1,111.95	(—)5.23
	TOTAL (II)	1,076.09	1,111.95	(—)5.23
<i>III. Private Licensees</i>				
<i>Western Region</i>	Gujarat	1,818.67	1,602.06	13.52
	Maharashtra	2,171.00	2,235.00	(—)2.86
<i>Eastern Region</i>	West Bengal	1,769.30	1,733.58	2.05
	TOTAL (III)	5,758.97	5,570.64	3.38

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TABLE No. 26—(Contd.)

Ownership	Diesel			
	1982-83	1981-82	% Increase	
I. Electy. Deptt./Govt. Under-				
takings/Corpn./Central Sector				
<i>Northern Region</i>	Chandigarh	0.05	0.24	(—)79.17
	Central Sector	..	..	..
<i>Western Region</i>	Central Sector	..	..	..
<i>Southern Region</i>	Andhra Pradesh	..	..	..
	Karnataka	..	..	..
	Lakshadweep	2.20	1.70	29.41
	Central Sector	..	..	..
<i>Eastern Region</i>	Bihar	..	..	..
	Orissa	..	..	..
	Sikkim	2.99	0.09	3,222.22
	West Bengal	..	..	..
	D.V.C.	..	..	..
	A & N Islands	10.78	10.00	7.80
	Central Sector	..	..	..
<i>North Eastern Region</i>	Manipur	10.81	16.56	(—)35.72
	Nagaland	0.31	0.54	(—)42.59
	Tripura	1.36	1.15	18.26
	Arunachal Pradesh	2.32	2.13	8.92
	Mizoram	5.66	3.12	81.41
	TOTAL (I)	36.48	35.53	2.67
II. Municipalities				
<i>Northern Region</i>	Delhi	1.30	1.34	(—)2.99
<i>Western Region</i>	Gujarat	..	..	..
<i>Eastern Region</i>	West Bengal	..	..	..
	TOTAL (II)	1.30	1.34	(—)2.99
III. Private Licences				
<i>Western Region</i>	Gujarat	0.09	0.08	12.50
	Maharashtra	..	..	..
<i>Eastern Region</i>	West Bengal	0.12	0.37	(—)67.57
	TOTAL (III)	0.21	0.45	(—)40.00

TABLE No. 26—(Concl'd.)

	Ownership	Nuclear		
		1982-83	1981-82	% Increase
I. Electy. Deptt./Govt. Under-				
takings/Corpn./Central Sector				
<i>Northern Region</i>	Chandigarh	..	..	..
	Central Sector	551.64	1,057.17	(—)47.82
<i>Western Region</i>	Central Sector	1,470.30	1,963.72	(—)25.13
<i>Southern Region</i>	Andhra Pradesh	..	..	..
	Karnataka	..	..	..
	Lakshadweep	..	..	..
	Central Sector	..	..	..
<i>Eastern Region</i>	Bihar	..	..	..
	Orissa	..	..	..
	Sikkim	..	..	..
	West Bengal	..	..	..
	D.V.C.	..	..	..
	A & N Islands	..	..	..
<i>North Eastern Region</i>	Manipur	..	..	..
	Nagaland	..	..	..
	Tripura	..	..	..
	Arunachal Pradesh	..	..	..
	Mizoram	..	..	..
	TOTAL	2,021.94	3,020.89	(—)33.07
II. Municipalities				
<i>Northern Region</i>	Delhi	..	..	..
<i>Western Region</i>	Gujarat	..	..	..
<i>Eastern Region</i>	West Bengal	..	..	..
	TOTAL (II)	..	..	..
III. Private Licencees				
<i>Western Region</i>	Gujarat	..	..	..
	Maharashtra	..	..	..
<i>Eastern Region</i>	West Bengal	..	..	..
	TOTAL (III)	..	..	..

TABLE NO. 27

Classification of Undertakings Generationwise—1982-83.*

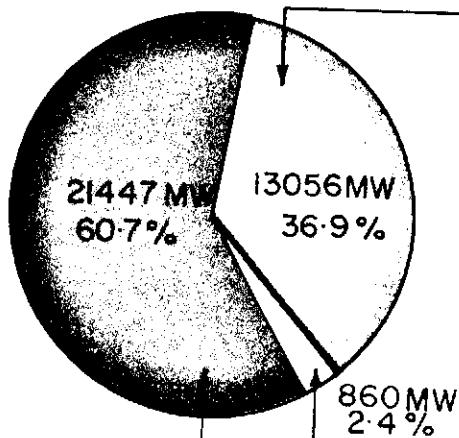
Range of Generation (Gwh)		No. of Undertakings	Total energy generated (GWH)	% to total	Installed capacity of the group (MW)	% to total
Under	1.00	4	0.26	Neg.	212.34	0.60
Over	1.00 upto 10.00	3	9.04	0.01	13.57	0.04
Over	10.00 upto 25.00	4	68.62	0.05	52.47	0.15
Over	25.00 upto 50.00	1	25.43	0.02	17.11	0.05
Over	50.00 upto 100.00	2	118.77	0.09	34.86	0.10
Over	100.00 upto 250.00	2	361.53	0.28	168.00	0.47
Over	250.00 upto 500.00	1	406.04	0.31	133.66	0.38
Over	500.00 upto 1,000.00	7	5,264.50	4.04	1,688.14	4.77
Over	1,000.00 upto 5,000.00	15	42,191.83	32.39	11,586.35	32.76
Over	5,000.00 upto 10,000.00	7	52,510.06	40.31	13,465.10	38.08
Above	10,000.00	2	29,307.50	22.50	7,991.67	22.60
TOTAL		48	1,30,263.58	100.00	35,363.27	100.00

INSTALLED GENERATING CAPACITY & ELECTRICITY GENERATION

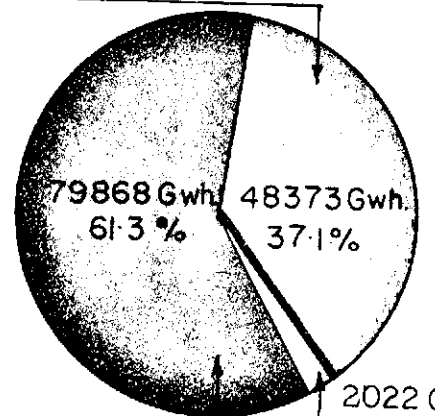
(UTILITIES)
(1982 - 83)

INSTALLED CAPACITY
(35363 MW)

ELECTRICITY GENERATION
GROSS (130263 Gwh.)



HYDRO



NUCLEAR

THERMAL

SECTION IV
CAPTIVE PLANTS

CAPTIVE PLANTS

As in previous years industrial sector continued to be the largest constituent of energy consumption. Besides generation by utilities, a number of industries representing primary production of infrastructure materials such as, iron and steel, aluminium, cement, paper, fertiliser etc. have their own captive plants to supplement purchase from utilities or for emergency use in case of power cut or producing energy as by-product of industrial process. Based on data received from 2751 industrial units (Units having their own captive plants with capacity of more than 100KW or contract demand of more than 500KVA) it is observed that, each category of industry viz. aluminium, cement, chemicals, fertilizers, iron & Steel, Non-ferrous, paper and textiles consumed more than 1500 GWH during 1982-83 details of which are numerated below:—

Sl. No.	Category	Number of Industries covered	Energy Consumption (GWH)		%increase/decrease
			1981-82	1982-83	
1	Aluminium (P)	7	4099.49	3923.45	(-)4.29
2	Cement (P)	58	1,987.78	2,215.36	11.45
3	Chemicals	231	4,404.23	4,718.70	7.14
4	Fertilizers	31	5,092.67	4,703.45	(-)7.64
5	Iron & Steel (P)	15	4,445.37	4,421.92	(-)0.53
6	Iron & Steel (S)	187	2,069.29	1,585.46	(-)23.38
7	Non-Ferrous	40	1,639.83	1,715.85	4.64
8	Paper	88	1,987.36	2,199.42	10.67
9	Textiles	560	6,430.28	5,909.43	(-)8.1
TOTAL		1,217	32,156.30	31,393.04	(-)2.37

NOTE : (P) Primary

It is significant from the above table that nearly 76.91% of the total consumption 40,818.69 GWH by industries is accounted for by mere 1,217 industries out of the above major categories.

Out of 2751 industrial units covered 1576 industrial units have captive plants which generated 9989.00 GWH of Electricity Eight Industrial categories viz. Aluminium (primary), Mineral Oil and Petroleum, Paper Sugar, Textiles and Chemicals generated 8669.33 GWH in aggregate by generating more than 600GWH by each of the above category, detail of which are given below:—

Name of Industry	Energy Generation (GWH)
Aluminium (P)	1,670.25
Chemical	687.33
Fertilizers	669.70
Iron & Steel (P)	2,088.50
Mineral Oil & Petroleum	706.32
Paper	820.63
Sugar	969.87
Textile	1,056.73
TOTAL	8,669.33

Nearly 86.79% of the captive generation is accounted for by these eight categories of industries.

Apart from industrial captive plants, railways have also got captive generating sets which are mainly used as stand by and for emergency purposes. Total capacity of captive plants of Railways during 1982-83 was 65.57 MW and 46.71 GWH were generated by these plants.

Various tables in this section give the detailed salient features of captive plants in the country.

Table No. 28

Installed Generating Capacity Of Selected Industries Region-wise/Statewise As On 31st March 1983
(In KW)

Region	State/Uts.	Aluminium (P)	Aluminium (S)	Automobiles
<i>Northern Region</i>	Haryana	..	1,311	1,973
	Himachal Pradesh	..	..	..
	Jammu & Kashmir	..	..	..
	Punjab	..	..	1,898
	Rajasthan	..	..	..
	Uttar Pradesh	2,70,000	..	..
	Chandigarh	..	..	..
	Delhi	..	..	..
	SUB-TOTAL	2,70,000	1,311	3,871
<i>Western Region</i>	Gujarat	..	..	..
	Madhya Pradesh	..	..	320
	Maharashtra	..	1,648	11,646
	Goa, Daman & Diu	..	..	..
	D & N Haveli	..	..	..
	SUB-TOTAL	..	1,648	11,966
<i>Eastern Region</i>	Bihar	..	6,675	..
	Orissa	..	210	..
	West Bengal	..	988	6,944
	A & N Islands	..	..	..
	Sikkim	..	..	..
	SUB-TOTAL	..	7,873	6,944
<i>Southern Region</i>	Andhra Pradesh	..	..	..
	Karnataka	..	595	5,320
	Kerala	..	400	..
	Tamil Nadu	..	..	307
	Pondicherry	..	..	..
	Lakshadweep	..	..	..
	SUB-TOTAL	..	995	5,627
<i>North Eastern Region</i>	Assam	..	..	..
	Manipur	..	..	..
	Meghalaya	..	..	..
	Nagaland	..	..	..
	Tripura	..	..	..
	Arunachal Pradesh	..	..	..
	Mizoram	..	..	..
	SUB-TOTAL	..	..	..
	TOTAL ALL-INDIA	2,70,000*	11,827	28,408

*This does not include 18,450 KW capacity of Inaian Aluminium Co. in West Bengal which is lying closed.

TABLE No. 28—Contd.

State/Uts.	Cement (P)	Cement (S)	Chemicals	Collieries
Haryana	1,760	3,958	1,960	..
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab . . . . .	..	..	901	..
Rajasthan	29,726	..	710	..
Uttar Pradesh	1,317	..	16,598	..
Chandigarh . . . . .	..	..	1,490	..
Delhi . . . . .	..	..	27,500	..
SUB-TOTAL	32,803	3,958	57,159	..
Gujarat	16,175	620	1,00,717	..
Madhya Pradesh	46,080	1,896	3,312	2,600
Maharashtra . . . . .	..	1,423	64,640	..
Goa, Daman & Diu . . . . .	..	..	9,882	..
D & N Haveli . . . . .	..	..	..	..
SUB-TOTAL	62,255	3,939	1,78,551	2,600
Bihar	18,808	..	..	31,000
Orissa . . . . .	..	1,300	..	..
West Bengal	688	1,232	13,031	..
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	19,496	2,532	13,031	31,000
Andhra Pradesh	3,360	..	3,325	39,700
Karnataka	20,200	..	11,135	..
Kerala . . . . .	..	..	1,651	..
Tamil Nadu	6,821	1,784	9,137	..
Pondicherry . . . . .	..	..	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	30,801	1,784	25,248	39,700
Assam . . . . .	..	390	906	715
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	390	906	715
TOTAL (ALL-INDIA)	1,44,935	12,603	2,74,895	74,015

TABLE No. 28—Contd.

State/UTs.	Elec. Engg.	Fertilizers	Food Products	Heavy Engineering
Haryana	4,995	1,500	664	..
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab	450	1,500	3,625	..
Rajasthan	1,251	35,660	2,330	1,984
Uttar Pradesh	20,830	12,500	4,967	5,135
Chandigarh	112	..	..	..
Delhi	832	..	576	..
Sub-TOTAL	28,470	51,160	12,162	7,119
Gujarat	2,000	248	537	..
Madhya Pradesh	4,730	..	1,478	..
Maharashtra	20,553	18,378	4,437	8,874
Goa, Daman & Diu . . . . .	..	..	..	..
D & N Haveli . . . . .	..	..	..	..
Sub-TOTAL	27,283	18,626	6,452	8,874
Bihar	2,060	81,780	800	19,400
Orissa . . . . .	..	..	..	320
West Bengal	9,212	2,250	16,971	14,183
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
Sub-TOTAL	11,272	84,030	17,771	33,903
Andhra Pradesh	816	5,360	9,363	2,698
Karnataka	13,516	..	1,592	10,330
Kerala	56	15,950	2,188	..
Tamil Nadu	2,013	2,660	1,860	7,260
Pondicherry . . . . .	..	..	160	..
Lakshadweep . . . . .	..	..	..	..
Sub-TOTAL	16,401	23,970	15,163	20,288
Assam . . . . .	..	1,750	1,737	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
Sub-TOTAL . . . . .	..	1,750	1,737	..
TOTAL (ALL-INDIA)	83,426	1,79,536	53,285	70,184

TABLE No. 28—Contd.

State/UTs.	Iron & Steel (P)	Iron & Steel (S)	Jute	Light Engineering
Haryana . . . . .	..	6,451	..	9,003
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	665
Punjab . . . . .	..	491	..	8,114
Rajasthan . . . . .	..	1,680	..	14,513
Uttar Pradesh . . . . .	..	2,808	2,582	4,662
Chandigarh . . . . .	..	..	..	20
Delhi . . . . .	..	412	..	..
SUB-TOTAL . . . . .	..	11,842	2,582	36,977
Gujarat . . . . .	..	2,142	..	2,556
Madhya Pradesh	36,000	380	..	..
Maharashtra . . . . .	..	6,349	..	19,695
Goa, Daman & Diu . . . . .	..	..	..	..
D & N Haveli . . . . .	..	..	..	..
SUB-TOTAL	36,000	8,871	..	22,251
Bihar	2,65,000	8,041	7,430	..
Orissa	1,40,152	100	..	..
West Bengal	80,000	724	1,54,744	5,198
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	4,85,152	8,865	1,62,174	5,198
Andhra Pradesh . . . . .	..	..	6,870	..
Karnataka	1,760	..	..	7,792
Kerala . . . . .	..	..	..	779
Tamil Nadu	1,448	5,390	..	24,384
Pondicherry . . . . .	..	..	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	3,208	5,390	6,870	32,955
Assam . . . . .	..	..	150	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	..	150	..
TOTAL (ALL-INDIA)	5,24,360	34,968	1,71,776	97,381

TABLE No. 28—Contd.

State/UTs.	Mining, Oil & Petroleum	Mining & Quarrying	Miscellaneous	Non-Ferrous	Paper
Haryana	204	..	9,950	136	9,875
Himachal Pradesh . . . . .	..	..	365	..	..
Jammu & Kashmir . . . . .	..	..	..	..	..
Punjab . . . . .	..	..	2,446	..	2,246
Rajasthan . . . . .	..	135	600	23,410	..
Uttar Pradesh	37,500	..	8,598	..	10,840
Chandigarh . . . . .	..	..	864	..	..
Delhi . . . . .	..	..	..	..	..
SUB-TOTAL	37,704	135	22,823	23,546	22,955
Gujarat	24,000	200	552	1,400	6,000
Madhya Pradesh	250	..	4,732	1,385	33,000
Maharashtra . . . . .	..	..	16,928	48	9,524
Goa, Daman & Diu . . . . .	..	100	248	..	..
D & N Haveli . . . . .	..	..	..	..	..
SUB-TOTAL	24,250	300	22,460	2,833	48,524
Bihar	24,000	..	832	51,380	16,032
Orissa . . . . .	..	..	..	410	18,200
West Bengal	31,676	..	16,791	..	32,109
A & N Islands . . . . .	..	..	..	..	..
Sikkim . . . . .	..	..	..	..	..
SUB-TOTAL	55,676	..	17,623	15,790	66,341
Andhra Pradesh	75	..	4,743	3,854	53,100
Karnataka . . . . .	..	..	3,991	7,331	36,733
Kerala	70	..	440	..	15,180
Tamil Nadu	22,400	128	9,077	..	8,899
Pondicherry . . . . .	..	..	..	..	..
Lakshadweep . . . . .	..	..	..	..	..
SUB-TOTAL	22,545	128	18,251	11,185	1,13,912
Assam	73,302	..	1,990	..	8,300
Manipur . . . . .	..	..	..	..	..
Meghalaya . . . . .	..	..	..	..	..
Nagaland . . . . .	..	..	..	..	..
Tripura . . . . .	..	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..	..
Mizoram . . . . .	..	..	..	..	..
SUB-TOTAL	73,302	..	1,990	..	8,300
TOTAL (ALL-INDIA)	2,13,477	563	83,147	53,354	2,60,032

TABLE No. 28—Contd.

State/UTs.	Plastic	Rubber	Sugar	Textile	Total
Haryana	2,619	9,290	16,749	82,398
Himachal Pradesh	365
Jammu & Kashmir	665
Punjab	5,900	14,234	41,799
Rajasthan	970	32,514	1,53,483
Uttar Pradesh	10,846	1,38,300	46,040	5,93,523
Chandigarh	2,486
Delhi	8,388	37,708
SUB-TOTAL	13,465	154,460	1,17,925	9,12,427
Gujarat	36,160	1,01,565	2,94,872
Madhya Pradesh	9,196	66,626	2,11,985
Maharashtra	1,487	5,704	1,38,883	1,04,109	4,34,326
Goa, Daman & Diu	9	10,239
D & N Islands
SUB-TOTAL	1,487	5,704	1,84,239	2,72,309	9,51,422
Bihar	29,076	1,184	5,27,498
Orissa	1,685	2,000	1,64,377
West Bengal	8,550	778	19,290	4,15,359
A & N Islands
Sikkim
SUB-TOTAL	8,550	31,539	22,474	1,107,234
Andhra Pradesh	2,970	..	51,975	13,795	2,02,004
Karnataka	228	44,445	19,331	1,84,299
Kerala	1,100	4,805	12,636	55,255
Tamil Nadu	2,540	14,695	52,391	1,19,860	4,66,248
Pondicherry	3,588	2,546	6,294
Lakshadweep
SUB-TOTAL	5,510	16,023	1,57,204	1,68,168	9,14,100
Assam	2,567	800	92,607
Manipur
Meghalaya
Nagaland	1,500	..	1,500
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL	4,067	800	94,107
TOTAL (ALL-INDIA)	6,997	43,742	5,31,509	5,81,676	38,06,096

Table No. 29

Gross electricity generation by selected industries regionwise, statewise during 1982-83

(GWH)

Region	State/UTs.	Aluminium (P)	Aluminium (S)	Automobiles
<i>Northern Region</i>	Haryana	..	0.26	3.31
	Himachal Pradesh	..	..	..
	Jammu & Kashmir	..	..	..
	Punjab	..	..	1.76
	Rajasthan	..	..	..
	Uttar Pradesh	1670.25	..	..
	Chandigarh	..	..	..
	Delhi	..	..	..
	SUB-TOTAL	1670.25	0.26	5.07
<i>Western Region</i>	Gujarat	..	..	..
	Madhya Pradesh	..	..	0.41
	Maharashtra	..	5.21	19.42
	Goa, Daman & Diu	..	..	..
	D & N Haveli	..	..	..
	SUB-TOTAL	..	5.21	19.83
<i>Eastern Region</i>	Bihar	..	22.52	..
	Orissa	..	0.01	..
	West Bengal	..	0.69	0.66
	A & N Islands	..	..	..
	Sikkim	..	..	..
	SUB-TOTAL	..	23.22	0.66
<i>Southern Region</i>	Andhra Pradesh	..	..	..
	Karnataka	..	0.34	7.53
	Kerala	..	0.02	..
	Tamil Nadu	..	..	0.10
	Pondicherry	..	..	..
	Lakshadweep	..	..	..
	SUB-TOTAL	..	0.36	7.63
<i>North Eastern Region</i>	Assam	..	..	..
	Manipur	..	..	..
	Meghalaya	..	..	..
	Nagaland	..	..	..
	Tripura	..	..	..
	Arunachal Pradesh	..	..	..
	Mizoram	..	..	..
	SUB-TOTAL	..	..	..
	TOTAL (ALL-INDIA)	1670.25	29.05	33.19

TABLE NO. 29—Contd.

State/UTs.	(GWH)			
	Cement (P)	Cement (S)	Chemicals	Collieries
Haryana . . . . .	..	8.14	0.68	..
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab . . . . .	..	..	..	..
Rajasthan	41.97	..	40.39	..
Uttar Pradesh . . . . .	..	..	44.46	..
Chandigarh . . . . .	..	..	0.81	..
Delhi . . . . .	..	..	170.18	..
SUB-TOTAL	41.97	8.14	256.52	..
Gujarat	18.41	0.35	294.71	..
Madhya Pradesh	126.48	0.92	0.87	1.95
Maharashtra . . . . .	..	3.06	57.12	..
Goa, Daman & Diu . . . . .	..	..	45.91	..
D & N Haveli . . . . .	..	..	..	..
SUB-TOTAL	144.89	4.33	398.61	1.95
Bihar	51.33	..	..	115.41
Orissa . . . . .	..	0.38	..	..
West Bengal	0.01	3.71	5.52	..
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	51.34	4.09	5.52	115.41
Andhra Pradesh	0.08	..	0.15	122.82
Karnataka	21.35	..	18.71	..
Kerala . . . . .	..	..	0.09	..
Tamil Nadu	16.73	1.46	7.69	..
Pondicherry . . . . .	..	..	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	38.16	1.46	26.64	122.82
Assam . . . . .	..	..	0.04	0.02
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	..	0.04	0.02
TOTAL (ALL-INDIA)	276.36	18.02	687.33	240.20

TABLE No. 29—Contd.

(GWH)

State/UTs	Electrical Engineering	Fertilizer	Food Products	Heavy Engineering
Haryana	2.53	0.04	0.34	..
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab	0.09	..	1.51	..
Rajasthan	1.56	265.94	1.51	1.40
Uttar Pradesh	17.02	53.52	1.64	3.21
Chandigarh	0.03	..	..	..
Delhi . . . . .	..	..	0.11	..
SUB-TOTAL	21.23	319.50	5.11	4.61
Gujarat	0.88	0.02	0.04	..
Madhya Pradesh	5.05	..	0.03	..
Maharashtra	15.23	63.24	3.28	9.62
Goa, Daman & Diu . . . . .	..	..	..	..
D & N Haveli . . . . .	..	..	..	..
SUB-TOTAL	21.16	63.26	3.35	9.62
Bihar	0.72	220.28	1.16	38.13
Orissa . . . . .	..	..	..	0.02
West Bengal	5.60	2.03	14.38	8.43
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	6.32	222.31	15.54	46.58
Andhra Pradesh	0.06	2.83	6.50	0.13
Karnataka	19.50	..	1.59	10.68
Kerala . . . . .	..	60.80	0.25	..
Tamil Nadu	2.94	0.40	1.53	3.74
Pondicherry . . . . .	..	..	0.11	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	22.50	64.03	9.98	14.55
Assam . . . . .	..	0.60	0.11	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	0.60	0.11	..
TOTAL (ALL-INDIA) ..	71.21	669.70	34.09	75.36

TABLE No. 29—Contd.

State/UTs.	Iron & Steel (P)	Iron & Steel (S)	Jute	Light Engineering
Haryana . . . . .	..	3.36	..	5.31
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	0.14
Punjab . . . . .	..	0.11	..	2.84
Rajasthan . . . . .	..	1.38	..	20.85
Uttar Pradesh . . . . .	..	1.72	2.20	0.95
Chandigarh . . . . .	..	..	..	..
Delhi . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	6.57	2.20	30.09
Gujarat . . . . .	..	0.51	..	0.99
Madhya Pradesh	217.51	..	..	..
Maharashtra . . . . .	..	3.34	..	16.92
Goa, Daman & Diu . . . . .	..	..	..	..
D & N Haveli . . . . .	..	..	..	..
SUB-TOTAL	217.51	3.85	..	17.91
Bihar	1,156.02	12.79	9.10	..
Orissa	501.71	0.01	..	..
West Bengal	212.13	0.09	190.68	1.10
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	1,869.86	12.89	199.78	1.10
Andhra Pradesh . . . . .	..	..	1.69	..
Karnataka . . . . .	..	..	..	6.35
Kerala . . . . .	..	..	..	0.03
Tamil Nadu	1.13	2.48	..	26.31
Pondicherry . . . . .	..	..	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	1.13	2.48	1.69	32.69
Assam . . . . .	..	..	..	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	..	..	..
TOTAL (ALL-INDIA)	2,088.50	25.79	203.67	81.79

TABLE No. 29—Contd.

State/UTs.	Mineral & Petroleum	Mining & Quarrying	Miscellaneous	Non-Ferrous	Paper
Haryana	0.05	..	10.39	0.02	69.52
Himachal Pradesh . . . . .	..	..	0.07	..	..
Jammu & Kashmir . . . . .	..	..	..	..	..
Punjab . . . . .	..	..	1.98	..	1.86
Rajasthan . . . . .	..	0.05	0.48	42.19	..
Uttar Pradesh	113.96	..	4.93	..	2.39
Chandigarh . . . . .	..	..	0.18	..	..
Delhi . . . . .	..	..	..	..	..
SUB-TOTAL	114.01	0.05	18.03	42.21	73.77
Gujarat	135.27	0.05	..	..	22.89
Madhya Pradesh	0.02	..	3.51	0.28	125.74
Maharashtra . . . . .	..	..	19.09	..	49.32
Goa, Daman & Diu . . . . .	..	0.01	..	..	..
D & N Haveli . . . . .	..	..	..	..	..
SUB-TOTAL	135.29	0.06	22.60	0.28	197.95
Bihar	181.81	..	0.38	27.36	54.16
Orissa . . . . .	..	..	..	..	83.42
West Bengal	112.41	..	10.91	..	97.99
A & N Islands . . . . .	..	..	..	..	..
Sikkim . . . . .	..	..	..	..	..
SUB-TOTAL	214.22	..	11.29	22.36	235.57
Andhra Pradesh . . . . .	..	..	0.61	0.71	172.56
Karnataka . . . . .	..	..	4.43	4.19	90.08
Kerala . . . . .	..	..	..	..	3.71
Tamil Nadu	122.17	0.03	7.36	..	36.70
Pondicherry . . . . .	..	..	..	..	..
Lakshadweep . . . . .	..	..	..	..	..
SUB-TOTAL	122.17	0.03	12.40	4.90	303.05
Assam	120.63	..	0.02	..	10.29
Manipur . . . . .	..	..	..	..	..
Meghalaya . . . . .	..	..	..	..	..
Nagaland . . . . .	..	..	..	..	..
Tripura . . . . .	..	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..	..
Mizoram . . . . .	..	..	..	..	..
SUB-TOTAL	120.63	..	0.02	..	10.29
TOTAL (ALL-INDIA)	706.32	0.14	64.34	74.75	820.63

TABLE No. 29—Contd.

State/UTs.	Plastic	Rubber	Sugar	Textile	Total
Haryana	4.99	19.96	19.74	148.64
Himachal Pradesh	0.07
Jammu & Kashmir	0.14
Punjab	12.19	15.02	37.36
Rajasthan	0.93	96.62	515.27
Uttar Pradesh	23.21	256.04	29.63	2,225.13
Chandigarh	1.02
Delhi	23.58	193.87
SUB-TOTAL	28.20	289.12	184.59	3,121.50
Gujarat	79.35	169.81	723.28
Madhya Pradesh	11.63	200.22	694.62
Maharashtra	0.20	16.98	292.38	130.93	705.34
Goa Daman & Diu	45.92
D & N Haveli
SUB-TOTAL	0.20	16.98	383.36	500.96	2,169.16
Bihar	27.60	0.77	1839.54
Orissa	2.87	11.69	600.11
West Bengal	8.09	0.14	39.06	713.63
A & N Islands
Sikkim
SUB-TOTAL	8.09	30.61	51.52	3,153.28
Andhra Pradesh	6.16	..	75.37	17.89	407.56
Karnataka	0.27	80.01	25.29	290.32
Kerala	6.76	25.82	97.48
Tamil Nadu	6.39	25.42	94.39	248.39	605.36
Pondicherry	6.46	1.94	8.51
Lakshadweep
SUB-TOTAL	12.55	25.69	262.99	319.33	1,409.23
Assam	1.29	0.33	133.33
Manipur
Meghalaya
Nagaland	2.50	..	2.50
Tripura
Arunachal Pradesh
Mizoram
SUB-TOTAL	3.79	0.33	135.83
TOTAL (ALL-INDIA)	12.75	78.96	969.87	1,056.73	9,989.00

(GWH)

TABLE NO. 30

Electricity Production and Consumption in selected Industries—Industry wise during 1982-83

Name of Industry	No. of factories covered	Installed Capacity (KW)			
		Steam	Diesel	Hydro/Gas	Total
Aluminium (P)	7	2,70,000	..	..	2,70,000
Aluminium (S)	16	6,500	5,327	..	11,827
Automobiles	20	..	28,408	..	28,408
Cement (P)	58	1,00,900	44,035	..	1,44,935
Cement (S)	27	..	12,603	..	12,603
Chemicals	231	1,38,610	1,16,285	20,000(G)	2,74,895
Collieries	461	74,015	..	..	74,015
Electrical Engineering	105	15,000	68,426	..	83,426
Fertilizer	31	170,080	9,456	..	179,536
Food Products	154	5,420	47,865	..	53,285
Heavy Engineering	45	..	70,184	..	70,184
Iron & Steel(P)	15	5,21,800	2,560	..	5,24,360
Iron & Steel(S)	187	944	34,024	..	34,968
Jute	83	34,420	1,37,356	..	1,71,776
Light Engineering	157	..	97,381	..	97,381
Mineral Oil & Petroleum	20	1,71,430	7,777	34,270(G)	2,13,477
Mining & Quarrying	22	..	563	..	563
Miscellaneous	161	1,233	81,914	..	83,147
Non-Ferrous	40	4,400	48,954	..	53,354
Paper	88	2,47,525	12,507	..	2,60,032
Plastic	9	2,970	4,027	..	6,997
Rubber	20	6,000	37,742	..	43,742
Sugar	234	4,85,325	46,184	..	5,31,509
Textile	560	1,85,812	393,264	2,600(H)	5,81,676
TOTAL	2,751	24,42,384	13,06,842	2,600(H) 34,270(G)	3,80,6096

TABLE No. 30—Contd.

Name of the Industry	Energy Generated (GWH)			Total
	Steam	Diesel	Hydro/Gas	
Aluminium (P)	1,670.25	..	..	1,670.25
Aluminium (S)	22.41	6.64	..	29.05
Automobiles . . . . .	..	33.19	..	33.19
Cement (P)	244.08	32.28	..	276.36
Cement (S) . . . . .	..	18.02	..	18.02
Chemicals	590.39	75.28	21.66(G)	687.33
Collieries	240.20	..	..	240.20
Electrical Engineering	13.69	57.52	..	71.21
Fertilizer	668.22	1.48	..	669.70
Food Products	6.17	27.92	..	34.09
Heavy Engineering . . . . .	..	75.36	..	75.36
Iron & Steel(P)	2,087.37	1.13	..	2,088.50
Iron & Steel(S)	1.14	24.65	..	25.79
Jute	67.96	135.71	..	203.69
Light Engineering . . . . .	..	81.79	..	81.79
Mineral Oil & Petroleum	628.70	23.60	54.02(G)	706.32
Mining & Quarrying . . . . .	..	0.14	..	0.14
Miscellaneous	2.06	62.28	..	64.34
Non-Ferrous	14.83	59.92	..	74.75
Paper	813.83	6.80	..	820.63
Plastic	6.16	6.59	..	12.75
Rubber	20.63	58.33	..	78.96
Sugar	952.00	17.87	..	969.87
Textile	446.96	599.77	10.00(H)	1,056.73
TOTAL	8,497.05	1,406.27	10.00(H) 75.68(G)	9,989.00

TABLE No. 30—Contd.

Name of the Industry	(GWH)		
	Energy used in station Auxiliary	Energy purchased from Utilities	Energy used in Industry
Aluminium (P)	179.06	2,432.26	3,923.45
Aluminium (S)	1.76	124.99	152.28
Automobiles	1.69	201.56	293.06
Cement (P)	27.75	1,966.75	2,215.36
Cement (S)	0.96	284.45	301.51
Chemicals	83.72	4,142.22	4,718.70
Collieries	29.37	1,524.47	1,722.52
Electrical Engineering	3.48	533.11	600.84
Fertilizer	86.71	4,120.46	4,703.45
Food Products	1.94	421.02	453.17
Heavy Engineering	2.50	742.78	815.64
Iron & Steel (P)	369.38	2,702.80	4,421.92
Iron & Steel (S)	0.90	1,560.57	1,585.46
Jute	13.71	571.28	761.25
Light Engineering	3.42	644.06	722.43
Mineral Oil & Petroleum	104.37	291.81	865.77
Mining & Quarrying . . . . .	..	88.16	88.30
Miscellaneous	3.57	790.36	851.13
Non-Ferrous	2.98	1,644.08	1,715.85
Paper	84.17	1,462.96	2,199.49
Plastic	0.89	149.47	161.33
Rubber	4.77	516.73	590.92
Sugar	91.03	166.59	1,045.43
Textile	79.16	4,931.86	5,909.43
TOTAL	1,177.29	32,074.80	40,818.69

TABLE No. 30—Contd.

Name of the Industry	Energy sold to		Aggregate Max. Demand	
	Utilities	Non-Utilities	Generation	Purchase
	(GWH)			
Aluminium (P)	2,54,000	4,37,514
Aluminium (S)	6,450	30,360
Automobiles	17,321	58,604
Cement (P)	90,731	4,74,934
Cement (S)	7,426	69,529
Chemicals	27.10	..	1,56,110	7,67,071
Collieries	12.73	..	43,443	3,61,579
Electrical Engineering	52,876	1,82,699
Fertilizer	1,26,682	6,54,621
Food Products	32,158	1,32,289
Heavy Engineering	50,651	2,07,562
Iron & Steel (P)	3,95,630	6,32,392
Iron & Steel (S)	20,207	6,58,622
Jute	1,05,009	1,33,735
Light Engineering	55,185	2,36,200
Mineral Oil & Petroleum	27.99	..	1,26,361	98,613
Mining & Quarrying	350	32,433
Miscellaneous	51758	239780
Non-Ferrous	36018	394792
Paper	184052	355276
Plastic	4470	34277
Rubber	31694	67950
Sugar	4,00,588	1,94,192
Textile	3,52,108	11,74,997
TOTAL	67.82*	..	26,01,278	7,600,321

*This does not include 2.54 GWH energy purchased by Andaman & Nicobar Islands Electricity Department.

TABLE No. 31—Contd.

Installed Capacity, Electricity Generation and Consumption in Selected Industries Regionwise/Statewise
During 1982-83

Region	State/UTs	Total No. of Industrial units covered	Total No. of Industrial Units having captive Plants	INSTALLED CAPACITY (KW)			
				Steam	Diesel	Hydro/ Gas	Total
<i>Northern Region</i>	Haryana	84	74	27,144	55,254	..	82,398
	Himachal Pradesh	6	1	..	365	..	365
	Jammu & Kashmir	1	1	..	665	..	665
	Punjab	78	52	10,860	30,939	..	41,799
	Rajasthan	92	72	73,190	80,293	..	153,483
	Uttar Pradesh	183	150	195,860	97,673	..	593,523
	Chandigarh	6	5	..	2,486	..	2,486
	Delhi	18	6	34,500	3,208	..	37,708
	SUB-TOTAL	468	361	641,544	270,883	..	912,427
<i>Western Region</i>	Gujarat	268	134	166,885	127,987	..	294,872
	Madhya Pradesh	133	51	168,200	43,785	..	211,985
	Maharashtra	456	286	18,152	226,174	20,000(G)	434,326
	Goa, Daman & Diu	11	5	7,500	2,739	..	10,239
	D. & N. Haveli . . . . .	..	..	..	..	..	..
		SUB-TOTAL	868	476	530,737	400,685	20,000(G)	951,422
<i>Eastern Region</i>	Bihar	256	50	475,347	52,151	..	527,498
	Orissa	35	13	161,885	2,492	..	164,377
	West Bengal	394	169	172,625	242,734	..	415,359
	A. & N. Islands . . . . .	..	..	..	..	..	..
	Sikkim . . . . .	..	..	..	..	..	..
	SUB-TOTAL	685	232	809,857	297,377	..	1,107,234
<i>Southern Region</i>	Andhra Pradesh	186	95	164,102	37,902	..	202,004
	Karnataka	122	91	114,345	67,354	2,600(H)	184,299
	Kerala	79	37	47,130	8,125	..	55,255
	Tamil Nadu	306	254	87,154	205,900	..	293,054
	Pondicherry	10	6	3,500	2,794	..	6,294
	Lakshadweep . . . . .	..	..	..	..	..	..
		SUB-TOTAL	703	483	416,231	322,075	2,600(H)	740,906
<i>North-Eastern Region</i>	Assam	25	23	42,515	15,822	34,270(G)	92,607
	Manipur . . . . .	..	..	..	..	..	..
	Meghalaya	1	..	..	..	..	..
	Nagaland	1	1	1,500	..	..	1,500
	Tripura . . . . .	..	..	..	..	..	..
	Arunachal Pradesh . . . . .	..	..	..	..	..	..
	Mizoram . . . . .	..	..	..	..	..	..
		SUB-TOTAL	27	24	44,015	15,822	34,270(G)	94,107
	TOTAL (ALL INDIA)	2,751	1,576	2,442,384	1,306,842	56,870	3,806,096

TABLE No. 31--Contd.

State/UTs.	AGGREGATE MAXIMUM DEMAND (KW)		ENERGY GENERATION (GWH)			
	Generation	Purchase	Steam	Diesel	Hydro/Gas	Total
Haryana	48,628	154,833	105.09	43.55	..	148.644
Himachal Pradesh	270	4,501	..	0.07	..	0.07
Jammu & Kashmir	450	450	..	0.14	..	0.14
Punjab	23,273	178,687	21.21	16.15	..	37.36
Rajasthan	112,158	295,493	351.84	163.43	..	515.27
Uttar Pradesh	482,338	517,953	2,168.04	57.09	..	2,225.13
Chandigarh	1,917	5,620	..	1.02	..	1.02
Delhi	27,715	39,156	193.76	0.11	..	193.87
SUB-TOTAL	696,749	1,196,643	2,839.94	281.56	..	3,121.50
Gujarat	153,745	756,091	570.21	153.07	..	723.28
Madhya Pradesh	145,158	733,279	668.94	25.68	..	694.62
Maharashtra	313,262	1,005,685	456.34	227.34	21.66(G)	705.34
Goa, Daman & Diu	7,508	19,650	45.14	0.78	..	45.92
D. & N. Haveli . . . . .	..	..	..	..	..	..
SUB-TOTAL	619,673	2,514,705	1,740.63	406.87	21.66	2,169.16
Bihar	360,553	1,693,135	1,769.32	70.22	..	1,839.54
Orissa	124,100	347,954	599.69	0.42	..	600.11
West Bengal	249,830	635,290	494.53	210.10	..	713.63
A. & N. Islands . . . . .	..	..	..	..	..	..
Sikkim . . . . .	..	..	..	..	..	..
SUB-TOTAL	734,483	2,676,379	2,863.54	289.74	..	3,153.28
Andhra Pradesh	126,622	690,061	401.09	6.47	..	407.56
Karnataka	117,084	631,378	208.17	72.15	10.00(H)	290.32
Kerala	52,829	344,899	96.17	0.51	..	97.48
Tamil Nadu	208,115	522,711	284.27	321.09	..	605.36
Pondicherry	5,115	8,920	6.44	2.07	..	8.51
Lakshadweep . . . . .	..	..	..	..	..	..
SUB-TOTAL	509,765	2,197,969	996.94	402.29	10.00(H)	1,409.23
Assam	37,636	60,995	53.50	25.81	54.02(G)	133.33
Manipur . . . . .	..	..	..	..	..	..
Meghalaya . . . . .	..	5,350	..	..	..	..
Nagaland	800	500	2.50	..	..	2.50
Tripura . . . . .	..	..	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..	..	..
Mizoram . . . . .	..	..	..	..	..	..
SUB-TOTAL	38,436	66,845	56.00	25.81	54.02	135.83
TOTAL ALL INDIA	2,599,106	8,652,541	8,497.05	1,406.27	85.68	9,989.00

TABLE No. 31—Contd.

State/UTs.	Energy used in Auxiliaries	Energy purchased		Energy used in Industries	Energy sold to	
		Utilities	Non-Utilities		Utilities	Non Utilities
Haryana	14.34	657.58	..	791.88	..	..
Himachal Pradesh. . . . .	..	3.75	..	3.82	..	..
Jammu & Kashmir . . . . .	..	2.42	..	2.56	..	..
Punjab	4.13	1,400.72	..	1,433.95	..	..
Rajasthan	49.73	777.83	..	1,243.37	..	..
Uttar Pradesh	245.20	2,220.05	..	4,199.98	..	..
Chandigarh	0.05	21.17	..	22.14	..	..
Delhi	24.26	91.64	..	261.25	..	..
SUB-TOTAL	337.71	5,175.16	..	7,958.95	..	..
Gujarat	84.76	3,689.20	..	4,296.94	30.78	..
Madhya Pradesh	103.21	3,333.23	..	3,924.64	..	..
Maharashtra	58.87	4,093.61	..	4,740.08	..	..
Goa, Daman & Diu	0.60	60.39	..	105.71	..	..
D. & N. Haveli . . . . .	..	..	..	..	..	..
SUB-TOTAL	247.44	11,176.43	..	13,067.37	30.78	..
Bihar	264.15	2,389.15	..	3,951.66	12.88	..
Orissa	103.89	1,470.44	..	1,966.66	..	..
West Bengal	87.55	2,365.14	..	2,991.21	0.01	..
A. & N. Islands . . . . .	..	..	..	..	..	..
Sikkim . . . . .	..	..	..	..	..	..
SUB-TOTAL	455.59	6,224.73	..	8,909.53	12.89	..
Andhra Pradesh	46.27	2,641.27	..	3,002.56	..	..
Karnataka	23.14	2,367.08	..	2,634.26	..	..
Kerala	9.48	1,325.85	..	1,413.85	..	..
Tamil Nadu	42.95	2,842.38	..	3,396.79	8.00	..
Pondicherry	0.08	35.76	..	44.19	..	..
Lakshadweep . . . . .	..	..	..	..	..	..
SUB-TOTAL	121.92	9,212.34	..	10,491.65	8.00	..
Assam	14.38	274.46	..	377.26	16.15	..
Manipur . . . . .	..	..	..	..	..	..
Meghalaya . . . . .	..	11.46	..	11.46	..	..
Nagaland	0.25	0.22	..	2.47	..	..
Tripura . . . . .	..	..	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..	..	..
Mizoram . . . . .	..	..	..	..	..	..
SUB-TOTAL	14.63	286.14	..	319.19	16.15	..
TOTAL ALL INDIA	1,177.29	32,074.80	..	40,818.69	67.82	..

TABLE No. 32—Contd.

Energy consumption by selected Industries Regionwise/Statewise during 1983-84

		(GWH)		
Region	State/UTs.	Aluminium (P)	Aluminium (S)	Automobile
<i>Northern Region</i>	Haryana	..	0.89	73.46
	Himachal Pradesh	..	..	..
	Jammu & Kashmir	..	..	..
	Punjab	..	..	23.55
	Rajasthan	..	..	..
	Uttar Pradesh	1,643.93	..	..
	Chandigarh	..	..	..
Delhi	..	..	..
	SUB-TOTAL	1,643.93	0.89	97.01
<i>Western Region</i>	Gujarat	..	..	0.17
	Madhya Pradesh	881.27	..	4.12
	Maharashtra	..	53.41	92.17
	Goa, Daman & Diu	..	..	..
	D. & N. Haveli	..	..	..
	SUB-TOTAL	881.27	53.41	96.46
<i>Eastern Region</i>	Bihar	..	21.34	..
	Orissa	166.60	3.43	..
	West Bengal	10.73	36.87	72.82
	A. & N. Islands	..	..	..
	Sikkim	..	..	..
	SUB-TOTAL	177.33	61.64	72.82
<i>Southern Region</i>	Andhra Pradesh	..	..	..
	Karnataka	638.14	33.51	25.84
	Kerala	335.25	2.83	..
	Tamil Nadu	247.54	..	0.93
	Pondicherry	..	..	..
	Lakshadweep	..	..	..
	SUB-TOTAL	1,220.92	36.34	26.77
<i>North-Eastern Region</i>	Assam	..	..	..
	Manipur	..	..	..
	Meghalaya	..	..	..
	Nagaland	..	..	..
	Tripura	..	..	..
	Arunachal Pradesh	..	..	..
	Mizoram	..	..	..
	SUB-TOTAL	..	..	..
	TOTAL ALL INDIA	3,923.45	152.28	293.06

TABLE No. 32—Contd.

State/UTs.	Cement (P)	Cement (S)	Chemicals	Collieries
Haryana	71.24	20.75	14.86	..
Himachal Pradesh . . . . .	..	..	..	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab . . . . .	..	..	6.43	..
Rajasthan	150.41	..	47.21	..
Uttar Pradesh	89.96	..	261.41	..
Chandigarh . . . . .	..	..	9.53	..
Delhi . . . . .	..	..	161.18	..
Sub-TOTAL	311.61	20.75	500.62	..
Gujarat	189.95	16.96	1,278.30	..
Madhya Pradesh	469.62	165.10	321.42	304.40
Maharashtra	70.37	19.23	648.18	135.35
Goa, Daman & Diu . . . . .	..	..	65.40	..
D. & N. Haveli . . . . .	..	..	..	..
SUAL	729.94	201.29	2,349.30	439.75
Bihar	209.27	..	66.47	599.59
Orissa	52.42	57.95	49.00	44.55
West Bengal	27.98	8.17	152.63	292.40
A. & N. Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
Sub-TOTAL	289.67	66.12	268.10	936.54
Andhra Pradesh	422.89	..	247.36	335.42
Karnataka	171.75	..	267.13	..
Kerala	7.63	..	341.38	..
Tamilnadu	247.52	7.95	742.6	..
Pondicherry . . . . .	..	..	..	..
Lakshadweep . . . . .	..	..	..	..
Sub-TOTAL	849.79	7.95	1,598.47	335.42
Assam	22.89	5.40	2.21	10.81
Manipur . . . . .	..	..	..	..
Meghalaya	11.46	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
Sub-TOTAL	34.35	5.40	2.21	10.81
TOTAL (ALL INDIA)	2,215.36	301.51	4,718.70	1,722.52

TABLE No. 32—Contd.

State/UTs.	Electrical Engg.	Fertilizers	Food products	Heavy Engg.
Haryana	16.47	166.01	5.38	..
Himachal Pradesh . . . . .	..	..	6.71	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab	1.60	900.90	52.60	..
Rajasthan	8.44	369.78	24.96	3.68
Uttar Pradesh	140.24	584.19	28.81	99.85
Chandigarh	0.97	..	..	..
Delhi	8.18	..	22.22	..
SUB-TOTAL	175.90	2,020.88	134.68	103.53
Gujarat	15.66	655.63	58.38	..
Madhya Pradesh	67.05	0.43	12.56	..
Maharashtra	111.09	464.79	74.35	77.05
Goa, Daman & Diu . . . . .	..	..	..	..
D. & N. Haveli . . . . .	..	..	..	..
SUB-TOTAL	193.80	1,120.85	145.29	77.05
Bihar	12.55	281.60	5.28	323.53
Orissa . . . . .	..	145.60	..	38.72
West Bengal	28.02	69.69	31.21	101.27
A. & N. Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	40.57	496.89	36.49	463.52
Andhra Pradesh	79.44	149.62	72.58	42.79
Karnataka	94.18	..	20.79	58.49
Kerala	6.66	336.44	23.07	..
Tamil Nadu	10.29	402.66	15.75	70.26
Pondicherry . . . . .	..	..	1.55	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	190.57	888.72	133.74	171.54
Assam . . . . .	..	176.11	2.97	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL	..	176.11	2.97	..
TOTAL (ALL INDIA)	600.84	4,703.45	453.17	815.64

Table No. 32—Contd.

State/UTs.	Iron & Steel(P)	Iron & Steel(S)	Jute	Light Engineering
Haryana . . . . .	..	72.64	..	44.19
Himachal Pradesh . . . . .	..	1.97	..	..
Jammu & Kashmir . . . . .	..	..	..	2.56
Punjab . . . . .	..	158.98	..	81.94
Rajasthan . . . . .	..	39.30	0.73	76.60
Uttar Pradesh . . . . .	..	141.14	17.11	24.41
Chandigarh . . . . .	..	..	..	3.17
Delhi. . . . .	..	3.28	..	1.52
SUB-TOTAL	..	417.31	17.84	234.39
Gujarat . . . . .	..	145.18	..	42.64
Madhya Pradesh	813.79	84.21	..	12.47
Maharashtra . . . . .	..	169.21	..	171.91
Goa, Daman & Diu . . . . .	..	..	..	..
D. & N. Haveli. . . . .	..	..	..	..
SUB-TOTAL	813.79	398.60	..	227.02
Bihar.	1,785.00	236.68	20.58	..
Orissa	907.12	1.94	..	..
West Bengal	554.13	198.91	676.49	28.00
A. & N. Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	3,246.25	437.53	697.07	28.00
Andhra Pradesh . . . . .	..	143.12	46.34	6.91
Karnataka	342.81	83.54	..	101.97
Kerala . . . . .	..	24.21	..	13.84
Tamil Nadu	19.07	80.99	..	110.30
Pondicherry . . . . .	..	0.16	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	361.88	332.02	46.34	233.02
Assam . . . . .	..	..	..	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL	..	..	..	..
TOTAL (ALL INDIA)	4,421.92	1,585.46	761.25	722.43

TABLE NO. 32--Contd.

State/UTs.	Mineral Oil & Petroleum	Mining & Quarrying	Miscellaneous	Non-ferrous
Haryana	0.67	..	44.49	0.36
Himachal Pradesh . . . . .	..	..	1.14	..
Jammu & Kashmir . . . . .	..	..	..	..
Punjab . . . . .	..	..	18.04	..
Rajasthan . . . . .	..	2.94	0.94	261.97
Uttar Pradesh	87.84	..	100.61	..
Chandigarh . . . . .	..	..	8.47	..
Delhi . . . . .	..	..	2.34	..
SUB-TOTAL	88.51	2.94	176.03	262.33
Gujarat	149.51	0.05	21.71	5.12
Madhya Pradesh	0.67	1.68	130.32	3.28
Maharashtra	168.60	..	255.03	107.65
Goa, Daman & Diu . . . . .	..	31.21	6.11	..
D. & N. Haveli . . . . .	..	..	..	..
SUB-TOTAL	318.78	32.94	413.17	116.05
Bihar	87.02	13.83	8.96	104.81
Orissa . . . . .	..	26.34	..	275.56
West Bengal	87.06	..	122.74	..
A. & N. Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	174.08	40.17	131.70	416.37
Andhra Pradesh	22.44	1.48	31.64	657.66
Karnataka . . . . .	..	6.94	25.04	263.44
Kerala	40.00	3.51	13.70	..
Tamil Nadu	104.81	0.32	58.24	..
Pondicherry . . . . .	..	..	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	167.25	12.25	128.62	921.10
Assam	117.15	..	1.61	..
Manipur . . . . .	..	..	..	..
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	..	..
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL	117.15	..	1.61	..
TOTAL (ALL INDIA)	865.77	88.30	851.13	1,715.85

TABLE NO. 32—Contd.

State/UTs.	Paper	Plastic	Rubber
Haryana	118.15	..	31.13
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir . . . . .	..	..	..
Punjab	37.49	..	..
Rajasthan	1.00	..	..
Uttar Pradesh	65.66	..	239.84
Chandigarh . . . . .	..	..	..
Delhi . . . . .	..	..	..
SUB-TOTAL	222.30	..	270.97
Gujarat	116.29	..	..
Madhya Pradesh	262.34	..	..
Maharashtra	195.16	133.82	59.83
Goa, Daman & Diu . . . . .	..	..	..
D. & N. Haveli . . . . .	..	..	..
SUB-TOTAL	573.79	133.82	59.83
Bihar	97.38	..	..
Orissa	162.74	..	..
West Bengal	232.73	0.58	65.50
A. & N. Islands . . . . .	..	..	..
Sikkim . . . . .	..	..	..
SUB-TOTAL	492.85	0.58	65.50
Andhra Pradesh	456.13	6.46	..
Karnataka	243.93	..	2.23
Kerala	74.98	..	28.35
Tamil Nadu	100.00	20.47	164.04
Pondicherry	7.53	..	..
Lakshadweep . . . . .	..	..	..
SUB-TOTAL	882.57	26.93	194.62
Assam	27.98	..	..
Manipur . . . . .	..	..	..
Meghalaya . . . . .	..	..	..
Tripura . . . . .	..	..	..
Nagaland . . . . .	..	..	..
Arunachal Pradesh . . . . .	..	..	..
Mizoram . . . . .	..	..	..
SUB-TOTAL	27.98	..	..
TOTAL (ALL INDIA)	2,199.49	161.33	590.92

TABLE NO. 32—Contd.

State/UTs.	Sugar	Textile	Total
Haryana	21.94	89.25	791.88
Himachal Pradesh . . . . .	..	..	3.82
Jammu & Kashmir . . . . .	..	..	2.56
Punjab	16.89	135.53	1,433.95
Rajasthan	4.58	250.83	1,243.37
Uttar Pradesh	286.21	388.77	4,199.98
Chandigarh . . . . .	..	..	22.14
Delhi . . . . .	..	62.53	261.25
SUB-TOTAL	329.62	926.91	7,958.95
Gujarat	75.06	1,526.33	4,296.94
Madhya Pradesh	11.23	378.68	3,924.64
Maharashtra	296.41	1,400.47	4,740.08
Goa, Daman & Diu . . . . .	..	2.99	105.71
D. & N. Haveli . . . . .	..	..	..
SUB-TOTAL	382.70	3,308.47	13,667.37
Bihar	29.38	12.39	3,951.66
Orissa	4.23	30.46	1,966.66
West Bengal	1.94	191.34	2,991.21
A. & N. Islands . . . . .	..	..	..
Sikkim . . . . .	..	..	..
SUB-TOTAL	35.55	234.19	8,909.53
Andhra Pradesh	87.83	192.45	3,002.56
Karnatak	91.72	162.81	2,634.26
Kerala	7.09	154.92	1,413.85
Tamil Nadu	99.86	893.19	3,396.79
Pondicherry	7.11	27.84	44.19
Lakshadweep . . . . .	..	..	..
SUB-TOTAL	293.61	1,431.21	10,491.65
Assam	1.48	8.65	377.26
Manipur . . . . .	..	..	..
Meghalaya . . . . .	..	..	11.46
Nagaland	2.47	..	2.47
Tripura . . . . .	..	..	..
Arunachal Pradesh . . . . .	..	..	..
Mizoram . . . . .	..	..	..
SUB-TOTAL	3.95	8.65	391.19
TOTAL (ALL INDIA)	1,045.43	5,909.43	40,818.69

TABLE NO 33

Classification of captive plants-capacitywise during 1982-83

Range of Installed Capacity (MW)	No. of generating industries	Aggregate installed capacity (MW)	% to total capacity	Gross energy generation by the group (GWH)	% to total generation
Upto 1.00	887	382.22	10.04	339.39	3.40
Over 1.00 Upto 10.00	637	1,702.10	44.72	2,909.08	29.05
Over 10.00 Upto 25.00	37	599.99	15.76	1,779.15	17.81
Above 25.00	15	1,121.78	29.48	4,968.38	49.74
TOTAL	1,576	3,806.09	100.00	9,989.00	100.00

TABLE NO. 34

Installed plant capacity and electricity generation by the railways regionwise/statewise during the year 1982-83.

Name of the Region	Name of the State/UTs.	INSTALLED PLANT CAPACITY (KW)		
		Steam	Diesel	Total
<i>Northern Region</i>	Haryana . . . . .	..	1,355	1,355
	Himachal Pradesh . . . . .	..	..	..
	Jammu & Kashmir . . . . .	..	275	275
	Punjab . . . . .	..	2,111	2,111
	Rajasthan	2,000	5,808	7,808
	Uttar Pradesh	4,500	7,264	11,764
	Delhi . . . . .	..	1,116	1,116
	SUB-TOTAL	6,500	17,929	24,429
<i>Western Region</i>	Gujarat	2,500	1,819	4,319
	Madhya Pradesh . . . . .	..	3,063	3,063
	Maharashtra . . . . .	..	1,874	1,874
	SUB-TOTAL	2,500	6,756	9,256
<i>Eastern Region</i>	Bihar	2,800	4,829	7,629
	West Bengal	7,160	4,176	11,336
	SUB-TOTAL	9,960	9,005	18,965
<i>Southern Region</i>	Andhra Pradesh . . . . .	..	2,437	2,437
	Karnataka . . . . .	..	2,427	2,427
	Kerala . . . . .	..	187	187
	Tamil Nadu . . . . .	..	3,564	3,564
	SUB-TOTAL . . . . .	..	8,615	8,615
<i>North Eastern Region</i>	Assam . . . . .	..	3,216	3,216
	Nagaland . . . . .	..	1,088	1,088
	SUB-TOTAL . . . . .	..	4,304	4,304
	TOTAL (ALL INDIA)	18,960	46,609	65,569

TABLE NO: 34—Contd.

Name of the Region	Name of the State/UTs.	Max. Demand (KVA)	ELECTRICITY GENERATION			Energy used in Aux.(GWH)
			Steam	Diesel	Total	
<i>Northern Region</i>	Haryana	813	..	0.35	0.35	..
	Himachal Pradesh . . . . .	..	..	..	..	..
	Jammu & Kashmir	205	..	0.02	0.02	..
	Punjab	1,568	..	0.25	0.25	..
	Rajasthan	4,854	1.18	1.52	2.70	0.12
	Uttar Pradesh	7,931	4.15	2.11	6.26	0.41
	Delhi	450	..	0.05	0.05	..
	SUB-TOTAL	15,821	5.33	4.30	9.63	0.53
<i>Western Region</i>	Gujarat	2,595	6.03	0.04	6.07	0.48
	Madhya Pradesh	2,128	..	0.52	0.52	0.01
	Maharashtra	1,313	..	0.27	0.27	..
	SUB-TOTAL	6,036	6.03	0.83	6.86	0.49
<i>Eastern Region</i>	Bihar	6,064	9.26	2.22	11.48	2.05
	West Bengal	5,327	10.94	4.67	15.61	1.13
	SUB-TOTAL	11,391	20.20	6.89	27.09	3.18
<i>Southern Region</i>	Andhra Pradesh	1,616	..	0.08	0.08	..
	Karnataka	1,723	..	0.17	0.17	..
	Kerala	165	..	0.01	0.01	..
	Tamil Nadu	2,565	..	0.34	0.34	..
	SUB-TOTAL	6,069	..	0.60	0.60	..
<i>North Eastern Region</i>	Assam	2,162	..	1.11	1.11	0.01
	Nagaland	900	..	1.42	1.42	0.01
	SUB-TOTAL	3,062	..	2.53	2.53	0.02
	TOTAL (ALL INDIA)	42,379	31.56	15.15	46.71	4.22

TABLE No. 35

Zonewise installed plant capacity and electricity generation by the railways during the year 1982-83

Sl. No.	Name of the Railways	INSTALLED CAPACITY (KW)		
		Steam	Diesel	Total
1.	Central Railways . . . . .	..	6,769	6,769
2.	Eastern Railways	2,800	3,500	6,300
3.	Northern Railways	2,500	11,877	14,377
4.	North Eastern Railways	2,000	3,007	5,007
5.	North East Frontier Railways . . . . .	..	7,393	7,393
6.	Southern Railways . . . . .	..	3,586	3,586
7.	South Central Railways . . . . .	..	3,784	3,784
8.	South Eastern Railways	7,160	..	7,160
9.	Western Railways	4,500	6,693	11,193
	TOTAL	18,960	46,609	65,569

TABLE No. 35--Contd.

Sl. No.	Maximum Demand (KVA)	ELECTRICITY GENERATED (GWH)			Energy used in Auxiliaries (GWH)
		Steam	Diesel	Total	
1.	4,702	..	0.91	0.91	0.04
2.	6,000	9.23	0.98	10.21	2.03
3.	9,697	4.15	2.83	6.98	0.38
4.	2,700	..	1.70	1.70	0.05
5.	5,018	..	5.78	5.78	0.05
6.	3,165	..	0.67	0.67	..
7.	1,637	..	0.68	0.68	..
8.	2,250	10.94	..	10.94	1.09
9.	7,210	7.24	1.60	8.84	0.58
TOTAL	42,379	31.56	15.15	46.71	4.22

SECTION V
ELECTRIC POWER SUPPLY
& SYSTEM LOSSES

ELECTRIC POWER SUPPLY AND SYSTEM LOSSES

During the year 1982-83 gross electricity generation was 130263.58 Gwh, out of this 9029.25 Gwh was used in power station auxiliaries which represents 6.93% of the gross electricity generation. Thus net generation at the bus-bar was 121234.33 Gwh. Electricity purchased by Public Utilities from captive plants was 70.36 Gwh and electricity imported from Nepal was 5.92 Gwh. Thus the total electricity available for supply during the year was 121310.61 Gwh compared to 113928.25 Gwh during the year 1981-82.

Electricity sold to various classes of consumers during the year 1982-83 was 95588.57 Gwh and electricity exported outside the country i.e. to Nepal and Bhutan was 78.10 Gwh. The Electricity lost in transformation, transmission and distribution system and electricity unaccounted for worked out to 25643.94 Gwh, representing 21.14% of the total electricity available as compared to 20.71% during 1981-82. Amongst all the regions percentage system losses were maximum in North Eastern Region (26.29%). This was followed by Northern Region (22.78%), Southern Region (21.72%), Western Region (19.58%) and Eastern Region (17.75%).

The various tables in this section represents the Regionwise, Statewise and Boardwise, T & D losses, transfer of electricity between different systems, electricity consumed in power Station auxiliaries.

TABLE NO. 36

Electricity generated, Purchased, Sold and Energy losses (All India Utilities) during 1982-83

Sl. No.	Item	Energy (GWH)	Percentage of item 1
1	Energy generated (gross) (utilities)	130,263.58	100.00
2	Energy used in power station auxiliaries	9,029.25	6.93
3	Energy generated (Net) i.e. (1)-(2)	121,234.33	93.07
		Energy (GWH)	Percentage of item 6
4	Energy purchased from non-utilities	70.36	0.06
5	Energy imported from other countries (Nepal)	5.92	Neg.
6	Energy available for supply i.e. (3)+(4)+(5)	121,310.61	100.00
7	Energy sold to ultimate consumers	95,588.57	78.80
8	Energy sold to other countries (Nepal & Bhutan)	78.10	0.06
9	Total energy sold i.e. (7)+(8)	95,666.67	78.86
10	Energy lost in transformation transmission, & distribution and unaccounted for i.e. (6)-(9)	25,643.94	21.14

TABLE NO. 37

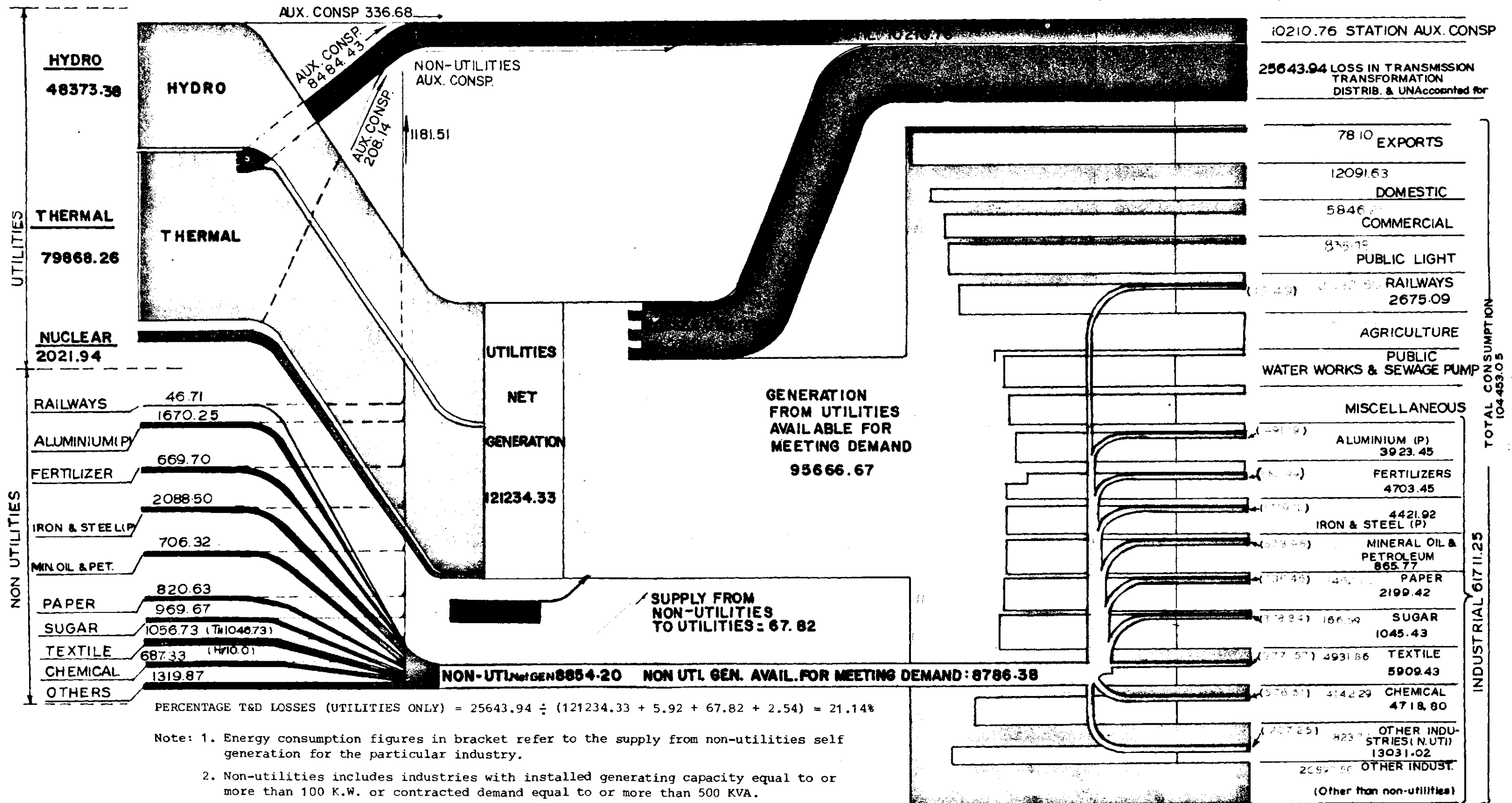
Energy lost in transmission and distribution system regionwise during 1982-83

Region	(GWH)				
	Northern	Western	Eastern	Southern	North Eastern
I. ENERGY GENERATED NET	34,615.42	37,010.99	16,194.87	32,082.01	1,331.04
II. ENERGY PURCHASED					
(a) from non-utilities	..	30.78	15.43	8.00	16.15
(b) from other regions	19.90	634.41	468.58	413.22	..
(c) from other countries	..	..	5.92	..	..
Sub-Total II	19.90	665.19	489.93	421.22	16.15
III. TOTAL ENERGY AVAILABLE (I+II)	34,635.32	37,676.18	16,684.80	32,503.23	1,347.19
IV. SALES					
(a) to ultimate consumers	26,182.60	29,888.64	13,642.45	24,939.44	935.44
(b) to other regions	543.67	410.01	23.11	503.82	55.50
(c) to other countries	48.88	..	57.12	..	2.10
Sub-Total IV	26,745.15	30,298.65	13,722.68	25,443.26	993.04
V. Energy lost in transmission & distribution & unaccounted for	7,890.17	7,377.53	2,962.12	7,059.97	354.15
VI. Percentage energy loss (V/III)	22.78	19.58	17.75	21.72	26.29

NOTE 1.—Net generation of jointly owned projects have been shown divided between the partner states as per their theoretical share.
 2. In the case of projects, jointly owned by states of different regions, excess/less drawal of energy than theoretical share have treated as inter-regional purchase/sale respectively.

ALL INDIA ELECTRICITY SUPPLY SYSTEM, ELECTRICAL ENERGY BALANCE-1982-83

(ALL FIGURES IN GWH)



PERCENTAGE T&D LOSSES (UTILITIES ONLY) = $25643.94 \div (121234.33 + 5.92 + 67.82 + 2.54) = 21.14\%$

- Note: 1. Energy consumption figures in bracket refer to the supply from non-utilities self generation for the particular industry.
2. Non-utilities includes industries with installed generating capacity equal to or more than 100 K.W. or contracted demand equal to or more than 500 KVA.
3. Generation from utilities available for meeting demand (95666.67 G.W.H.) also includes supply of 2.54 G.W.H. supplied from Naval Ship to the ARN Islands Electricity Deptt.

TABLE NO. 38

Energy generation (net) inter system transfer of power, utilization of energy and system losses regionwise/statewise during 1982-83

(GWH)

Region	State/U.Ts.	Net Generation in own power houses (other than jointly owned projects & Central Govt. Projects)	Energy received from		
			Jointly owned & Central Govt. Projects (except B.B.M.B. & D.V.C.)	Self generating Industries	From other States including B.B.M.B. & D.V.C. including from outside the country
1	2	3	4	5	6
<i>Northern Region</i>	Haryana	986.20	443.80	..	2,843.89
	Himachal Pradesh	539.78	80.28	..	280.21
	Jammu & Kashmir	934.68	84.09	..	215.61
	Punjab	2,404.38	74.98	..	4,812.02
	Rajasthan	15.41	2,231.01	..	2,486.81
	Uttar Pradesh	11,436.08	962.79	..	278.77
	Chandigarh	0.04	..	..	263.09
	Delhi	398.22	3,157.53	..	51.93
B.B.M.B.	10,906.15	..	..	..
<i>Western Region</i>	Gujarat	9,790.40	678.95	30.78	199.60
	Madhya Pradesh	5,562.78	1,427.72	..	546.90
	Maharashtra	18,771.94	779.20	..	127.50
	Goa, Daman & Diu	..	..	..	323.06
	D & N Haveli	..	..	..	10.69
<i>Eastern Region</i>	Bihar	2,360.34	..	12.88	3,566.30
	Orissa	2,872.37	322.23	..	90.95
	West Bengal	5,405.16	..	0.01	2,182.16
	D.V.C.	5,333.70	..	..	276.50
	A & N Islands	11.69	..	2.54	..
	Sikkim	22.49	..	..	..
<i>Southern Region</i>	Andhra Pradesh	8,992.00	470.85	..	30.46
	Karnataka	7,657.21	77.35	..	694.96
	Kerala	4,461.43	..	..	83.03
	Tamil Nadu	6,873.29	3,414.60	8.00	485.58
	Pondicherry	..	..	..	184.05
	Lakshadweep	2.17	..	..	..
<i>North Eastern Region</i>	Assam	836.19	..	16.15	304.15
	Manipur	12.05	..	..	37.66
	Meghalaya	403.89	..	..	..
	Nagaland	1.16	..	..	84.89
	Tripura	52.86	..	..	9.48
	Arunachal Pradesh	19.42	..	..	2.84
	Mizoram	5.47	..	..	7.70

TABLE NO. 38—Contd.

Name of State/UTs.	Energy available in the state (3+4+5+6) (7)	Energy sent out to/sold to		
		Other States including outside the country (8)	Ultimate consumers within the state (9)	Total (8+9)
Haryana	4,273.89	124.29	3,326.20	3,450.49
Himachal Pradesh	900.27	370.39	333.41	703.80
Jammu & Kashmir	1,234.38	64.19	669.35	733.54
Punjab	7,291.38	144.37	5,806.82	5,951.19
Rajasthan	4,733.23	224.58	3,280.68	3,505.26
Uttar Pradesh	12,677.64	430.19	9,855.44	10,285.65
Chandigarh	263.13	..	190.70	190.70
Delhi	3,567.68	..	2,720.00	2,720.00
B.B.M.B.	10,906.15	10,416.97	..	10,416.97
Gujarat	10,699.73	37.45	8,400.92	8,438.37
Madhya Pradesh	7,537.40	71.37	5,860.60	5,931.97
Maharashtra	19,678.64	874.53	15,392.18	16,266.71
Goa, Daman & Diu	323.06	..	226.09	226.09
D & N Haveli	10.69	..	8.85	8.85
Bihar	5,939.52	238.36	4,729.11	4,967.47
Orissa	3,285.55	18.95	2,667.01	2,685.96
West Bengal	7,587.33	80.68	6,218.48	6,299.16
D.V.C.	5,610.20	5,515.08	..	5,515.08
A & N Islands	14.33	..	11.37	11.37
Sikkim	22.49	1.68	16.48	18.16
Andhra Pradesh	9,493.31	151.12	7,056.08	7,207.20
Karnataka	8,429.52	408.67	6,227.33	6,636.00
Kerala	4,544.46	675.53	2,929.68	3,605.21
Tamil Nadu	10,781.47	200.25	8,579.09	8,779.34
Pondicherry	184.05	..	145.48	145.48
Lakshadweep	2.17	..	1.78	1.78
Assam	1,156.49	162.51	745.81	908.32
Manipur	49.71	..	19.72	19.72
Meghalaya	403.89	302.25	73.07	375.32
Nagaland	86.05	37.66	28.50	66.16
Tripura	62.34	0.13	42.91	43.04
Arunachal Pradesh	22.26	1.77	15.01	16.78
Mizoram	13.17	..	10.42	10.42

TABLE No. 38—Concl'd.

Name of State/UTs.	Transformation, Transmission, Distribution losses & Energy unaccounted for	
	(GWH) (7-10)	% of column 7
Haryana	823.40	19.27
Himachal Pradesh	196.47	21.82
Jammu & Kashmir	500.84	40.57
Punjab	1,340.19	18.38
Rajasthan	1,227.97	25.94
Uttar Pradesh	2,392.01	18.87
Chandigarh	72.43	27.53
Delhi	847.68	23.76
B.B.M.B.	489.18	4.48
Northern Region	7,890.17	22.78
Gujarat	2,261.36	21.13
Madhya Pradesh	1,605.43	21.30
Maharashtra	3,411.93	17.33
Goa, Daman & Diu	96.97	30.02
D & N Haveli	1.84	17.21
Western Region	7,377.53	19.58
Bihar	972.05	16.37
Orissa	599.59	18.25
West Bengal	1,288.18	16.98
D.V.C.	95.12	1.70
A & N Islands	2.86	20.10
Sikkim	4.33	19.25
Eastern Region	2,962.12	17.75
Andhra Pradesh	2,286.11	24.08
Karnataka	1,793.52	21.28
Kerala	939.25	20.65
Tamil Nadu	2,002.13	18.57
Pondicherry	38.57	20.96
Lakshadweep	0.39	17.97
Southern Region	7,059.97	21.72
Assam	248.17	21.46
Manipur	29.99	60.33
Meghalaya	28.57	7.07
Nagaland	19.89	23.11
Tripura	19.30	30.96
Arunachal Pradesh	5.48	24.62
Mizoram	2.75	20.88
North-Eastern Region	354.15	26.29
ALL INDIA	25,646.93	21.14

Note.—For details of All India and Regionwise losses refer tables 36 and 37 respectively.

*Includes losses of Balra Siul.

TABLE NO. 39

Energy Generation (net), Intersystem Transfer of Energy, Utilisation and Losses by State Electricity Boards, DVC, B.B.M.B. & D.E.S.U. during 1982-83

(GWH)

Name of the Region/Board/Undertaking	Net Generation, in own Power Houses (other than jointly owned Central Govt. Projects)	Energy received from	
		Utilities within State/jointly owned Central Govt. Projects except DVC & BBMB	Other Boards/ Electric Undertakings (including DVC & BBMB)
1	2	3	4
<i>Northern Region</i>			
Haryana	986.20	443.80	2,843.89
Himachal Pradesh	539.78	38.47	280.21
Jammu & Kashmir	934.68	46.06	215.61
Punjab	2,404.38	74.98	4,187.33
Rajasthan	15.41	2,228.22	2,486.81
Uttar Pradesh	11,436.08	944.22	278.77
B.B.M.B.	10,906.15	..	..
D.E.S.U.	398.22	3,115.84	51.93
<i>Western Region</i>			
Gujarat	8,107.60	834.77	199.60
Madhya Pradesh	5,562.78	1,427.72	546.90
Maharashtra	15,500.94	2,468.96	127.50
<i>Eastern Region</i>			
Bihar	2,360.34	..	1,811.45
Orissa	2,872.37	322.23	90.95
West Bengal	2,988.64	575.30	545.23
D.V.C.	5,333.70	..	276.50
<i>Southern Region</i>			
Andhra Pradesh	8,992.00	464.70	30.46
Karnataka	7,705.22	75.81	694.96
Kerala	4,461.43	..	83.03
Tamil Nadu	6,873.29	3,041.91	485.58
<i>North Eastern Region</i>			
Assam	836.19	..	304.15
Meghalaya	403.89	..	..

Abbreviations :—B.B.M.B.=Bhakra Beas Management Board.
D.E.S.U.=Delhi Electric Supply Undertaking.

TABLE No. 39—Contd.

(GWH)

Name of Board/Undertaking	Energy received from self gene- rating industries	Energy available for supply (including sales outside the State (2+3+4+5))	Energy sold to	
			Licensees with- in the State	Other Boards/ Undertakings/ D.V.C.
1	5	6	7	8
Haryana . . . . .	..	4,273.89	..	124.29
Himachal Pradesh . . . . .	..	858.46	..	370.39
Jammu & Kashmir . . . . .	..	1,196.35	17.97	64.19
Punjab . . . . .	..	6,666.69	185.31	144.37
Rajasthan . . . . .	..	4,730.44	11.27	224.58
Uttar Pradesh . . . . .	..	12,659.07	39.86	430.19
B.B.M.B. . . . .	..	10,906.15	..	10,416.97
D.E.S.U. . . . .	..	3,565.99	456.90	..
Gujarat	30.78	9,172.75	1,163.84	37.45
Madhya Pradesh . . . . .	..	7,537.40	54.88	71.37
Maharashtra . . . . .	..	18,097.40	4,447.45	874.53
Bihar	12.88	4,184.67	26.45	238.36
Orissa . . . . .	..	3,285.55	9.33	18.95
West Bengal	0.01	4,109.18	1,305.90	18.72
D.V.C. . . . .	..	5,610.20	..	5,515.08
Andhra Pradesh . . . . .	..	9,487.16	107.00	151.12
Karnataka . . . . .	..	8,475.99	25.00	408.67
Kerala . . . . .	..	4,544.46	40.56	675.53
Tamil Nadu	8.00	10,408.78	250.81	200.25
Assam	16.15	1,156.49	..	162.51
Meghalaya . . . . .	..	403.89	..	302.25

TABLE NO. 39—Contd.

Name of the Board/Undertaking	Energy sold to Ultimate consu- mers	Total sold (7+8+9)	Transformation, Transmission & Distribution losses and energy unaccounted for	
			(GWH) (6—10)	% of Co. 6
	9	10	11	12
Haryana	3,326.20	3,450.49	823.40	19.27
Himachal Pradesh	324.52	694.91	163.55	19.05
Jammu & Kashmir	632.57	714.73	481.62	40.26
Punjab	5,018.79	5,348.47	1,318.22	19.77
Rajasthan	3,257.51	3,493.36	1,237.08	26.15
Uttar Pradesh	9,821.43	10,291.48	2,367.59	18.70
B.B.M.B. . . . .	..	10,416.97	489.18	4.48
D.E.S.U.	2,311.00	2,767.90	798.09	22.38
Gujarat	6,061.47	7,262.76	1,909.99	20.82
Madhya Pradesh	5,819.85	5,996.10	1,591.30	21.11
Maharashtra	10,021.27	15,343.25	2,754.15	15.22
Bihar	2,992.50	3,257.31	927.36	22.16
Orissa	2,662.98	2,691.26	594.29	18.09
West Bengal	1,987.88	3,312.50	796.68	19.39
D.V.C. . . . .	..	5,515.08	95.12	1.70
Andhra Pradesh	6,991.83	7,249.95	2,237.21	23.58
Karnataka	6,208.00	6,641.67	1,834.32	21.64
Kerala	2,893.88	3,609.97	934.49	20.56
Tamil Nadu	8,029.00	8,480.06	1,928.72	18.53
Assam	745.81	908.32	248.17	21.46
Meghalaya	73.07	375.32	28.57	7.07

TABLE NO. 40

Statement showing Pilferage/Misuse of Energy reported by State Electricity Boards during 1982-83

Name of the Region	Name of the Electricity Board	No. of cases where inspections were carried out	No. of cases where theft or misuses was detected	Estimated quantity of energy considered as pilferage or misuse (GWH)
<i>Nothern Region</i>	Haryana	14,846	1,761	N.A.
	Himachal Pradesh	N.A.	N.A.	N.A.
	Jammu & Kashmir	N.A.	N.A.	N.A.
	Punjab	N.A.	N.A.	N.A.
	Rajasthan	4,169	2,926	N.A.
	Uttar Pradesh	23,273	3,516	53.89
<i>Western Region</i>	Gujarat	N.A.	N.A.	N.A.
	Madhya Pradesh	440,569	14,703	N.A.
	Maharashtra	353,761	8,179	5.28
<i>Eastern Region</i>	Bihar	N.A.	N.A.	N.A.
	Orissa	70	46	0.007
	West Bengal	135	87	0.06
<i>Southern Region</i>	Andhra Pradesh	N.A.	N.A.	N.A.
	Karnataka	N.A.	N.A.	N.A.
	Kerala	N.A.	N.A.	N.A.
	Tamil Nadu	20,950	9,222	1.83
<i>North Eastern Region</i>	Assam	N.A.	N.A.	N.A.
	Meghalaya	N.A.	N.A.	N.A.

Note :—Data not available.

TABLE NO. 41

Gross Generation, Net Energy Generation and Auxiliary Consumption (Utilities only) Primemoverwise Regionwise/ Statewise during 1982-83

Region	Name of the State/U.Ts.	TOTAL			
		Gross generation (GWH)	Net generation (GWH)	Auxiliary Consumption (GWH)	% to gross generation
Northern Region .	Haryana	4,910.57	4,668.50	242.07	4.93
	Himachal Pradesh	541.46	539.78	1.68	0.31
	Jammu & Kashmir	939.03	934.68	4.35	0.46
	Punjab	7,776.64	7,503.75	272.89	3.51
	Rajasthan	33,597.02	3,513.14	83.88	2.33
	Uttar Pradesh	12,585.14	11,436.08	1,149.06	9.13
	Chandigarh	0.05	0.04	0.01	20.00
	Delhi	1,077.39	963.65	1.374	10.56
	Central Sector	5,649.52	5,055.80	593.72	10.51
Sub-Total	37,076.82	34,615.42	2,461.40	6.64	
Western Region .	Gujarat	10,777.56	9,790.40	987.16	9.16
	Madhya Pradesh	7,680.98	6,990.50	690.48	8.99
	Maharashtra	20,138.36	18,771.94	1,366.42	6.79
	Goa, Daman & Diu . . . . .	..	..	..	..
	D & N Haveli . . . . .	..	..	..	..
	Central Sector	1,591.04	1,458.15	132.89	8.85
Sub-Total	40,187.94	37,010.99	3,176.95	7.90	
Eastern Region .	Bihar	2,753.30	2,360.34	392.96	14.27
	Orissa	3,184.72	3,061.49	123.23	3.87
	West Bengal	5,937.78	5,405.16	532.62	8.97
	D.V.C.	6,008.48	5,333.70	674.78	11.23
	A. & N. Islands	12.35	11.69	0.66	5.34
	Sikkim	25.43	22.49	2.94	11.56
	Sub-Total	17,922.06	16,194.87	1,727.19	9.64
Southern Region .	Andhra Pradesh	10,255.05	9,625.30	629.75	6.14
	Karnataka	7,721.43	7,705.22	16.21	0.21
	Kerala	4,487.73	4,461.43	26.30	0.59
	Tamil Nadu	7,382.37	6,873.29	509.08	6.90
	Pondicherry . . . . .	..	..	..	..
	Lakshadweep	2.20	2.17	0.03	1.36
	Central Sector	3,832.70	3,414.60	418.10	10.91
Sub-Total	33,681.48	32,082.01	1,599.47	4.75	
North Eastern Region .	Assam	896.24	836.19	60.05	6.70
	Manipur	12.60	12.05	0.55	4.36
	Meghalaya	406.04	403.89	2.15	0.53
	Nagaland	1.18	1.16	0.02	1.69
	Tripura	53.42	52.86	0.56	1.05
	Arunachal Pradesh	20.14	19.42	0.72	3.57
	Mizoram	5.66	5.47	0.19	3.56
	Sub-Total	1,395.28	1,331.04	64.24	4.60
Total (All India)	130,263.58	121,234.33	9,029.25	6.93	

TABLE No. 41—Contd.

Region	State/U.Ts.	HYDRO			
		Gross generation (GWH)	Net generation (GWH)	Auxiliary consumption	
				(GWH)	% to gross generation
<i>Northern Region</i>	Haryana	3,412.56	3,399.59	12.97	0.38
	Himachal Pradesh	541.42	539.74	1.68	0.31
	Jammu & Kashmir	934.29	730.79	3.50	0.37
	Punjab	5,809.94	5,788.72	21.22	0.36
	Rajasthan	2,841.16	2,823.39	17.77	0.62
	Uttar Pradesh	4,175.46	4,161.82	13.64	0.33
	Chandigarh	..	..	..	..
	Delhi	..	..	..	..
	Central Sector	821.03	818.80	2.23	0.27
	Sub-Total	18,535.86	18,462.85	73.01	0.39
<i>Western Region</i>	Gujarat	410.43	406.53	3.90	0.95
	Madhya Pradesh	417.03	416.20	0.83	0.20
	Maharashtra	5,723.02	5,580.37	142.65	2.49
	Goa, Daman & Diu	..	..	..	..
	D. & N. Haveli	..	..	..	..
	Central Sector	..	..	..	..
	Sub-Total	6,550.48	6,403.10	147.38	2.25
<i>Eastern Region</i>	Bihar	142.13	141.22	0.91	0.64
	Orissa	2,158.23	2,145.55	12.68	0.59
	West Bengal	92.45	91.47	0.98	1.06
	D.V.C.	147.19	144.40	2.79	1.90
	A. & N. Islands	..	..	..	..
	Sikkim	22.44	19.70	2.74	12.21
	Sub-Total	2,562.44	2,542.34	20.10	0.78
<i>Southern Region</i>	Andhra Pradesh	4,692.65	4,653.30	39.35	0.84
	Karnataka	7,721.43	7,705.22	16.21	0.21
	Kerala	4,487.73	4,461.43	26.30	0.59
	Tamil Nadu	3,344.80	3,333.89	10.91	0.33
	Pondicherry	..	..	..	..
	Lakshadweep	..	..	..	..
	Central Sector	..	..	..	..
	Sub-Total	20,246.61	20,153.84	92.77	0.46
<i>North Eastern Region</i>	Assam	..	..	..	..
	Manipur	1.79	1.63	0.16	8.94
	Meghalaya	405.45	403.30	2.15	0.53
	Nagaland	0.87	0.85	0.02	2.30
	Tripura	52.06	51.54	0.52	1.00
	Arunachal Pradesh	17.82	17.25	0.57	3.20
	Mizoram	..	..	..	..
	Sub-Total	477.99	474.57	3.42	0.72
	Total (All India)	48,373.38	48,036.70	336.68	0.70

TABLE No. 41—Contd.

Region	State/U.Ts.	STEAM			
		Gross generation (GWH)	Net generation (GWH)	Auxiliary Consumption (GWH)		% to gross generation
<i>Northern Region</i>	Haryana	1,498.01	1,268.91	229.10	15.29
	Himachal Pradesh	..	..	..	..
	Jammu & Kashmir	4.67	3.82	0.85	18.20
	Punjab	1,966.58	1,714.91	251.67	12.86
	Rajasthan	755.80	689.69	66.11	8.75
	Uttar Pradesh	8,449.68	7,274.26	1,134.42	13.50
	Chandigarh	..	..	..	..
	Delhi	1,076.09	962.38	113.71	10.57
	Central Sector	4,276.85	3,781.11	495.74	11.59
Sub-Total	17,987.68	15,695.08	2,292.60	12.74	
<i>Western Region</i>	Gujarat	10,283.33	9,305.08	978.25	9.51
	Madhya Pradesh	7,263.95	6,574.30	689.65	9.49
	Maharashtra	13,353.66	12,136.28	1,217.38	9.12
	Goa, Daman & Diu	..	..	..	..
	D. & N. Haveli	..	..	..	..
	Central Sector	120.74	100.24	20.50	16.98
Sub-Total	31,021.68	28,115.90	2,905.78	9.37	
<i>Eastern Region</i>	Bihar	2,610.41	2,218.40	392.01	15.02
	Orissa	1,026.49	915.94	110.55	10.77
	West Bengal	5,627.97	5,098.50	529.47	9.41
	D.V.C.	5,861.29	5,189.30	671.99	11.46
	A. & N. Islands	1.57	1.36	0.21	13.38
	Sikkim	..	..	..	..
Sub-Total	15,127.73	13,423.50	1,704.23	11.27	
<i>Southern Region</i>	Andhra Pradesh	5,562.40	4,972.00	590.40	10.61
	Karnataka	..	..	..	..
	Kerala	..	..	..	..
	Tamil Nadu	4,037.57	3,539.40	498.17	12.34
	Pondicherry	..	..	..	..
	Lakshadweep	..	..	..	..
	Central Sector	3,832.70	3,414.60	418.10	10.91
Sub-Total	13,432.67	11,926.00	1,506.67	11.22	
<i>North Eastern Region</i>	Assam	344.05	308.45	35.60	10.35
	Manipur	..	..	..	..
	Meghalaya	..	..	..	..
	Nagaland	..	..	..	..
	Tripura	..	..	..	..
	Arunachal Pradesh	..	..	..	..
	Mizoram	..	..	..	..
	Sub-Total	344.05	308.45	35.60	10.35
Total (All India)	77,913.81	69,468.93	8,444.88	10.84	

TABLE No. 41—Contd.

Region	State/U.Tr.	DIESEL			
		Gross generation (GWH)	Net generation (GWH)	Auxiliary Consumption (GWH)	% to gross generation
<i>Northern Region</i>	Haryana . . . . .	..	..	..	..
	Himachal Pradesh	0.04	0.04	neg.	..
	Jammu & Kashmir	0.07	0.07	neg.	..
	Punjab	0.12	0.12	neg.	..
	Rajasthan	0.06	0.06	neg.	..
	Uttar Pradesh . . . . .	..	..	..	..
	Chandigarh	0.05	0.04	0.01	20.00
	Delhi	1.30	1.27	0.03	2.31
	Central Sector . . . . .	..	..	..	..
Sub-Total	1.64	1.60	0.04	2.44	
<i>Western Region</i>	Gujarat	0.09	0.08	0.01	11.11
	Madhya Pradesh . . . . .	..	..	..	..
	Maharashtra . . . . .	..	..	..	..
	Goa, Daman & Diu . . . . .	..	..	..	..
	D. & N. Haveli . . . . .	..	..	..	..
	Central Sector . . . . .	..	..	..	..
Sub-Total	0.09	0.08	0.01	11.11	
<i>Eastern Region</i>	Bihar	0.76	0.72	0.04	5.26
	Orissa . . . . .	..	..	..	..
	West Bengal	4.95	4.59	0.36	7.27
	D.V.C. . . . .	..	..	..	..
	A. & N. Islands	10.78	10.33	0.45	4.17
	Sikkim	2.99	2.79	0.20	6.69
Sub-Total	19.48	18.43	1.05	5.39	
<i>Southern Region</i>	Andhra Pradesh . . . . .	..	..	..	..
	Karnataka . . . . .	..	..	..	..
	Kerala . . . . .	..	..	..	..
	Tamil Nadu . . . . .	..	..	..	..
	Pondicherry . . . . .	..	..	..	..
	Lakshadweep	2.20	2.17	0.03	1.36
	Central Sector . . . . .	..	..	..	..
Sub-Total	2.20	2.17	0.03	1.36	
<i>North-Eastern Region</i>	Assam . . . . .	..	..	..	..
	Manipur	10.81	10.42	0.39	3.61
	Meghalaya	0.59	0.59	..	..
	Nagaland	0.31	0.31	..	..
	Tripura	1.36	1.32	0.04	2.94
	Arunachal Pradesh	2.32	2.17	0.15	6.47
	Mizoram	5.66	5.47	0.19	3.36
	Sub-Total	21.05	20.28	0.77	3.66
Total (All India)*	44.46	42.56	1.90	4.27	

TABLE No. 41—Contd.

Name of the State/UTs.	GAS			
	Gross generation (GWH)	Net generation (GWH)	Auxiliary Consumption (GWH)	% to gross generation
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh
Delhi
Central Sector
Sub-Total
Gujarat	83.71	78.71	5.00	5.97
Madhya Pradesh
Mharashtra	1,061.68	1,055.29	6.39	0.60
Goa, Daman & Diu
D. & N. Haveli
Central Sector
Sub-Total	1,145.39	1,134.00	11.39	0.99
Bihar
Orissa
West Bengal	212.41	210.60	1.81	0.85
D.V.C.
A. & N. Islands
Sikkim
Central Sector
Sub-Total	212.41	210.60	1.81	0.85
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
Sub-Total
Assam	552.19	527.74	24.45	4.43
Manipur
Meghalaya
Tripura
Arunachal Pradesh
Mizoram
Nagaland
Sub-Total	552.19	527.74	24.45	4.43
Total (All India)	1,909.99	1,872.34	37.65	1.97

TABLE No. 41—Contd.

Name of State/UTs.	NUCLEAR			
	Gross generation (GWH)	Net generation (GWH)	Auxiliary Consumption	
			(GWH)	% to gross generation
Haryana
Himachal Pradesh
Jammu & Kashmir
Punjab
Rajasthan
Uttar Pradesh
Chandigarh
Delhi
Central Sector	551.64	455.89	95.75	17.36
Sub-Total	551.64	455.89	95.75	17.36
Gujarat
Madhya Pradesh
Maharashtra
Goa, Daman & Diu
D. & N. Haveli
Central Sector	1,470.30	1,357.91	112.39	7.64
Sub-Total	1,470.30	1,357.91	112.39	7.64
Bihar
Orissa
West Bengal
D.V.C.
A. & N. Islands.
Sikkim
Central Sector
Sub-Total
Andhra Pradesh
Karnataka
Kerala
Tamil Nadu
Pondicherry
Lakshadweep
Central Sector
Sub-Total
Assam
Manipur
Meghalaya
Tripura
Arunachal Pradesh
Mizoram
Nagaland
Sub-Total
Total (All India)	2,021.94	1,813.80	208.14	10.29

TABLE No. 42

Share of Participating States in Jointly Owned Power Stations During 1982-83

Name of Power Station	Name of Participating States	Share of Participating States		Total capacity (MW)
		%	I.C (MW)	
<i>Bhakra Beas Management Board</i>				
(a) Bhakra Nangal Complex (Hydro)	Haryana	84.78 × 40%	408.47	1204.50*
	Punjab	84.78 × 60%	612.70	
	Rajasthan	15.22	183.33	
(b) Dehar (Hydro)	Haryana	32	264.00	825.00
	Punjab	48	396.00	
	Rajasthan	20	165.00	
(c) Pong (Hydro)	Haryana	16.6	59.76	360.00
	Punjab	24.9	89.64	
	Rajasthan	58.5	210.60	
Indraprastha Extn. (Steam)	Delhi	66.67	125.00	187.50
	Haryana	33.33	62.50	
<i>Chambal Projects</i>				
(a) Gandhi Sagar (Hydro)	Madhya Pradesh	50	57.50	115.00
	Rajasthan	50	57.50	
(b) Jawahar Sagar (Hydro)	Madhya Pradesh	50	49.50	99.00
	Rajasthan	50	49.50	
(c) Rana Pratap Sagar (Hydro)	Madhya Pradesh	50	86.00	172.00
	Rajasthan	50	86.00	
(d) Satpura (Steam)	Madhya Pradesh	60	187.50	312.50
	Rajasthan	40	125.00	
Machkund (Hydro)	Andhra Pradesh	70	80.33	114.75
	Orissa	30	34.42	
Thunghbadra Dam & Hampi (Hydro)	Andhra Pradesh	80	57.60	72.00
	Karnataka	20	14.40	

NOTE 1—*It comprise of capacity of Ganguwal 77.25 MW, Kotla 77.25 MW, Bhakra left bank 450 MW and Bhakra right bank 600 MW.

I. C. = Installed Capacity.

TABLE No. 42—Concl'd.

Name of the Power Station	Energy generated (GWH)		Energy off-take by States** (GWH)	
	Gross	Net		
<i>B. B. M. B.</i>				
(a) Bhakra Nangal Complex (Hydro)	6,885.43	6,871.35	Haryana	2,813.42
			Punjab	4,002.51
			Rajasthan	2,119.92
(b) Dehar (Hydro)	2,609.96	2,594.76	Jammu & Kashmir	215.57
			R. F. F.	182.50
(c) Pong (Hydro)	1,460.13	1,440.04	Nangal Fertilizers	614.69
			I. B. Bhakra	10.00
			Chandigarh	196.86
			Himachal Pradesh	261.50
			(Old & New including BSL)	
			B. B. M. B. System	
			Losses	489.18
Indraprastha Extn. (Steam) (Unit 2, 3 & 4)	933.04	848.14	Delhi	565.43
			Haryana	282.71
<i>Chambal Projects :</i>				
(a) Gandhi Sagar (Hydro)	209.61	208.95		
(b) Jawahar Sagar (Hydro)	280.14	279.74	Madhya Pradesh	1,427.72
(c) Rana Pratap Sagar (Hydro)	344.31	343.71	Rajasthan	1,090.54
(d) Satpura (Steam)	1,841.36	1,685.86		
Machkund (Hydro)	632.74	630.41	Andhra Pradesh	308.18
			Orissa	322.23
Tungabhadra Dam & Hampi (Hydro)	240.79	240.02	Andhra Pradesh	162.67
			Karnataka	77.35

Notes :—**Including losses. Excluding B. B. M. B. System.

I. B. Bhakra—means Irrigation Board Bhakra.

B. B. M. B.—means Bhakra Beas Management Board.

TABLE NO. 43

Installed Capacity, Energy Generated, Energy sent out by Central Govt. Projects & D. V. C. during 1982-83

Name of Power Station	Installed Capacity (MW)	Energy generated (GWH)		Off-take by states including losses	
		Gross	Net		
Badarpur Thermal Power Station (Steam)	720.00	3,058.09	2,687.35£	Punjab	16.04
				Delhi	1,840.44
				Haryana	121.60
				H. P. S. E. B.	9.58
				Baira Siul (HP)	5.90
				J. & K.	46.06
				H. E. Project	
				Salal (J. & K.)	25.77
				Rajasthan	561.58
				U. P.	58.70
				Total	2,685.67
Baira Siul (Hydro)	180.00	821.03	818.80	Delhi	648.10
				H. P.	70.70\$\$
				Haryana	37.22
				Punjab	56.42
				Salal	12.26
Singrauli S. T. P. S.	630.00	1,218.76	1,093.76	H. S. E. B.	2.27
				P. S. E. B.	2.52
				R. S. E. B.	123.00
				D. E. S. U.	61.88
				U. P. S. E. B.	904.09££
Rajasthan Atomic Power Project (Nuclear)	440.00	551.64	455.89	Rajasthan	455.89
Tarapur Atomic Power Station (Nuclear)	420.00	1,470.30	1,357.91	Gujarat	678.95
				Maharashtra	678.96
				Total	1,357.91
Kalyan Steam Power Station (Chola Central Railway)	96.00	120.74	100.24	Maharashtra	100.24
Korba S. T. P. S.	120.00	..	..	..	..
Damodar Valley Corporation @	1,631.50	6,008.48	5,333.70	Bihar	3,382.59
				West Bengal	2,122.81**
				Orissa	5.42
				U. P. S. E. B.	4.26
				Total	5,515.08@@
Neyveli Lignite Corporation (Steam)	600.00	3,832.70	3,414.60\$	Tamil Nadu	3,041.91

Notes :—£— 1.68 GWH (difference between net generation and energy sent out) has been consumed by Badarpur Power Station within works & colony.

@—D. V. C. is owned by three partners viz. Central Govt; Bihar Govt; and West Bengal Govt.

@@—Net generation does not tally with the total energy sent out by D. V. C. since it includes energy purchased by D. V. C.

*— Includes 1754.85 GWH direct sales by D. V. C. to ultimate consumers in Bihar area.

**— Includes 717.50 GWH direct sales by D. V. C. to ultimate consumers in West Bengal area.

\$— 372.69 GWH (difference between net generation) and energy sent out has been consumed by Neyveli Lignite Corporation within works.

\$\$— Includes losses of energy and colony consumption of 38.82 & 2.99 Mkw respectively.

££— Includes losses of energy.

TABLE NO. 44

Statement Showing Interstate Transfer of Power Regionwise/Statewise during 1982-83

Name of Supplier	Name of Purchaser	Energy Transferred (GWH)
<i>Northern Region</i>		
Haryana S. E. B.	Punjab S. E. B.	5.48
Haryana S. E. B.	Chandigarh	19.67
Haryana S. E. B.	D. E. S. U.	33.75
Haryana S. E. B.	Rajasthan S. E. B.	21.67
Haryana S. E. B.	Uttar Pradesh S. E. B.	43.72
Himachal Pradesh S. E. B.	Punjab S. E. B.	143.84
Himachal Pradesh S. E. B.	Uttar Pradesh S. E. B.	226.55
Jammu & Kashmir S. E. B.	Punjab S. E. B.	28.79
Jammu & Kashmir S. E. B.	Rajasthan S. E. B.	35.40
Punjab S. E. B.	Chandigarh	46.56
Punjab S. E. B.	Uttar Pradesh S. E. B.	1.64
Punjab S. E. B.	Rajasthan S. E. B.	37.65
Punjab S. E. B.	Himachal Pradesh S. E. B.	9.83
Punjab S. E. B.	Delhi	18.18
Punjab S. E. B.	J. & K. S. E. B.	0.04
Punjab S. E. B.	Haryana S. E. B.	30.47
Uttar Pradesh S. E. B.	Rajasthan S. E. B.	76.63
Uttar Pradesh S. E. B.	Punjab S. E. B.	6.71
Uttar Pradesh S. E. B.	Himachal Pradesh S. E. B.	8.88
<i>Western Region</i>		
Gujarat S. E. B.	Maharashtra	14.85
Gujarat S. E. B.	Goa, Daman & Diu	11.91
Gujarat S. E. B.	Dadra and Nagar Haveli	10.69
Madhya Pradesh S. E. B.	Maharashtra S. E. B.	50.59
Maharashtra S. E. B.	Madhya Pradesh S. E. B.	154.29
Maharashtra S. E. B.	Goa, Daman & Diu	131.41
Maharashtra S. E. B.	Gujarat S. E. B.	199.60
<i>Eastern Region</i>		
Bihar S. E. B.	West Bengal S. E. B.	0.95
Bihar S. E. B.	Orissa S. E. B.	8.42
Bihar S. E. B.	D. V. C.	186.86
Orissa S. E. B.	Bihar S. E. B.	1.25
Orissa S. E. B.	West Bengal S. E. B.	1.22
West Bengal S. E. B.	Bihar S. E. B.	1.36
Damodar Valley Corpn.	Bihar S. E. B.	1,627.74
Damodar Valley Corpn.	West Bengal S. E. B.	485.88
Damodar Valley Corpn.	Durgapur Project Ltd.,	82.50
Damodar Valley Corpn.	Dishergarh E. S. Co.	110.87
Damodar Valley Corpn.	Seebpore E. S. Co.	239.86
Damodar Valley Corpn.	Calcutta E. S. Co.	486.20
Damodar Valley Corpn.	Orissa S. E. B.	5.42
Durgapur Project Ltd.	Damodar Valley Corpn.	61.96
Sikkim	West Bengal S. E. B.	1.68

TABLE No. 44—Contd.

Name of Supplier	Name of Purchaser	Energy transferred (GWH)
<i>Southern Region</i>		
Andhra Pradesh S. E. B.	Pondicherry	1.87
Andhra Pradesh S. E. B.	Karnataka S. E. B.	11.41
Andhra Pradesh S. E. B.	Tamil Nadu S. E. B.	8.93
Karnataka S. E. B.	Andhra Pradesh S. E. B.	6.16
Karnataka S. E. B.	Kerala S. E. B.	57.71
Karnataka S. E. B.	Tamil Nadu S. E. B.	103.00
Kerala S. E. B.	Tamil Nadu S. E. B.	373.65
Kerala S. E. B.	Karnataka S. E. B.	294.32
Kerala S. E. B.	Pondicherry	7.56
Tamil Nadu S. E. B.	Andhra Pradesh S. E. B.	0.31
Tamil Nadu S. E. B.	Pondicherry	174.62
Tamil Nadu S. E. B.	Kerala S. E. B.	25.32
<i>North Eastern Region</i>		
Assam S. E. B.	Mizoram	7.70
Assam S. E. B.	Nagaland	84.89
Assam S. E. B.	Arunachal Pradesh	2.84
Assam S. E. B.	Tripura	9.48
Tripura	Assam S. E. B.	0.13
Meghalaya S. E. B.	Assam S. E. B.	302.25
Nagaland	Manipur	37.66
Arunachal Pradesh	Assam S. E. B.	1.77
<i>Inter-Regional Transfers of Power</i>		
<i>Northern Region</i>		
Uttar Pradesh S. E. B.	Madhya Pradesh S. E. B.	116.23
Rajasthan S. E. B.	Madhya Pradesh S. E. B.	224.58
<i>Western Region</i>		
Uttar Pradesh S. E. B.	Bihar S. E. B.	175.18
Uttar Pradesh S. E. B.	D. V. C.	27.66
<i>Eastern Region</i>		
Maharashtra S. E. B.	Karnataka S. E. B.	389.23
Madhya Pradesh S. E. B.	Andhra Pradesh S. E. B.	7.51
<i>Southern Region</i>		
Madhya Pradesh S. E. B.	Uttar Pradesh S. E. B.	0.23
Madhya Pradesh S. E. B.	Rajasthan S. E. B.	13.04
<i>Northern Region</i>		
Orissa S. E. B.	Andhra Pradesh S. E. B.	16.48
<i>Eastern Region</i>		
Bihar S. E. B.	Uttar Pradesh S. E. B.	2.37
D. V. C.	Uttar Pradesh S. E. B.	4.26
<i>Northern Region</i>		
Assam S. E. B.	West Bengal S. E. B.	55.50
<i>Southern Region</i>		
Andhra Pradesh S. E. B.	Madhya Pradesh S. E. B.	51.80
Karnataka S. E. B.	Goa, Daman & Diu	179.74
Karnataka S. E. B.	Maharashtra S. E. B.	62.06
<i>Eastern Region</i>		
Andhra Pradesh	Orissa S. E. B.	77.11
<i>Outside the Country</i>		
Uttar Pradesh S. E. B.	Nepal	18.88
Bihar S. E. B.	Nepal	39.76
West Bengal S. E. B.	Bhutan	17.36
Assam S. E. B.	Bhutan	2.10
Nepal	Bihar S. E. B.	5.92

NOTE 1—D. V. C. is being treated as a separate entity for the purpose of this table.

2. Energy sent out to various States from jointly owned projects have been shown in Table No. 42.

SECTION VI
OPERATING DATA (UTILITIES)

OPERATING DATA

The coal consumption by various steam station in the country was 48.62 Million Metric Tonnes during the year 1982-83 as compared to 42.23 Million Metric Tonnes during the previous year indicating an increase of 15.13% where as the consumption of other fuels viz. furnace oil, LSHS/HHS, wood and Diesel also increased by 42.92%, 10.80%, 56.73% and 40.66% respectively. Total fuel consumption for steam power station (i.e. coal equivalent assuming average calorific value as 5000 K. Cal./Kg.) deteriorated to 3297 K. Cal./Kwh in 1982-83 as against 13.33% increase in generation. The average heat rate for all the power stations improved to 3297 K. Cal./Kwh in 1982-83 as compared to 3206 K. Cal./Kwh in previous year.

Out of 98 steam power stations 42 power stations having aggregate installed capacity of 2147.08 MW representing 10.37% of total capacity of Steam stations reported an overall thermal efficiency below 20%. This group of stations produced 4660.87 GWH i.e., 5.98% of total steam generation.

19 power stations with an aggregate capacity of 4546.10 MW reported an overall thermal efficiency ranging between 20 to 25% and generated 16962.76 GWH i.e., 21.77% of total steam generation. 24 power stations with aggregate capacity of 8422.50 MW had an overall thermal efficiency in the range of 25 to 30% and produced 33565.52 GWH which represented 43.08% of total steam generation. 13 power stations with aggregate capacity of 5596.50 MW reported an overall thermal efficiency above 30% and generated 22724.66 GWH which cover 29.17% of total steam generation during 1982-83.

This section depicts the Statewise and Regionwise picture of fuel consumption by various types of plants. Two tables, one showing the manpower engaged in various State Electricity Boards and the other indicating the simultaneous Peak Demand in various regions are also given in this Section.

TABLE No. 45

Consumption of Fossil Fuels for Electricity Generation from Thermal Stations (By kind of Fuels)
Regionwise/Statewise during 1982-83

Region	State/U.Ts.	STEAM STATIONS		
		Coal (MT)	Lignite (MT)	Furnace oil (KL)
<i>Northern Region</i>	Haryana	9,42,608	..	35,000
	Himachal Pradesh . . . . .	..	..	..
	Jammu & Kashmir	5,275	..	..
	Punjab	15,26,723	..	17,775
	Rajasthan	26,561	..	1,229
	Uttar Pradesh	66,21,285	..	76,666
	Chandigarh . . . . .	..	..	..
	Delhi	9,24,232	..	33,069
	Central Sector	27,27,947	..	79,973
	Sub-TOTAL	1,27,74,631	..	2,43,712
<i>Western Region</i>	Gujarat	42,00,368	241	8,45,822
	Madhya Pradesh	65,81,741	..	7,16,817
	Maharashtra	74,12,812	..	86,490
	Goa, Daman & Diu . . . . .	..	..	..
	D. & N. Haveli . . . . .	..	..	..
	Central Sector	1,82,795	..	2,680
		Sub-TOTAL	1,83,77,716	241	16,51,809
<i>Eastern Region</i>	Bihar	19,76,561	..	36,297
	Orissa	8,48,301	..	8,764
	West Bengal	36,84,415	..	7,673
	D. V. C.	40,34,432	..	53,299
	A. & N. Islands . . . . .	..	7,730(\$)	..
	Sikkim . . . . .	..	..	..
		Sub-TOTAL	1,05,43,709	7,730(\$)	1,06,033
<i>Southern Region</i>	Andhra Pradesh	40,36,404	..	75,068
	Karnataka . . . . .	..	..	..
	Kerala . . . . .	..	..	..
	Tamil Nadu	27,79,690	..	1,53,903
	Pondicherry . . . . .	..	..	..
	Lakshadweep . . . . .	..	..	..
	Central Sector . . . . .	..	53,69,000	8,692
	Sub-TOTAL	68,16,094	53,69,000	2,37,663
<i>North Eastern Region</i>	Assam	1,11,543	..	36,435
	Manipur . . . . .	..	..	..
	Meghalaya . . . . .	..	..	..
	Nagaland . . . . .	..	..	..
	Tripura . . . . .	..	..	..
	Arunachal Pradesh . . . . .	..	..	..
	Mizoram . . . . .	..	..	..
		Sub-TOTAL	1,11,543	..	36,435
	TOTAL (ALL INDIA)	4,86,23,693	53,69,241 +7,730\$	22,75,652

MT = Metric Tonne

KL = Kilo Litre

\$ = Wood fuel

TABLE No. 45—Contd.

State/U.Ts.	STEAM STATIONS		
	Light Diesel Oil (KL)	LSHS/HHS* (MT)	Natural Gas (Million Cu. Mts.)
Haryana	13,105	..	..
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir	829	..	..
Punjab	5,081	..	..
Rajasthan	864	..	..
Uttar Pradesh	64,528	4,098	..
Chandigarh . . . . .	..	..	..
Delhi	1,974	..	..
Central Sector	7,839	..	..
SUB-TOTAL	94,220	4,098	..
Gujarat	7,339	7,703	113.06
Madhya Pradesh	7,409	..	..
Maharashtra	18,173	3,47,265	1,92,240 M.T. (B)
Goa, Daman & Diu . . . . .	..	..	..
D. & N. Haveli . . . . .	..	..	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	32,921	3,54,968	113.06+1,92,240 M.T. (B)
Bihar	29,201	28,719	..
Orissa	1,918	..	..
West Bengal	52,408	..	..
D. V. C.	45,356	..	..
A. & N. Islands	3,395	..	..
Sikkim . . . . .	..	..	..
SUB-TOTAL	1,32,278	28,719	..
Andhra Pradesh	7,853	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu	7,264	5,609	..
Pondicherry . . . . .	..	..	..
Lakshadweep . . . . .	..	..	..
Central Sector	287	..	..
SUB-TOTAL	15,404	5,609	..
Assam	477	28,944	28.24
Manipur . . . . .	..	..	..
Meghalaya . . . . .	..	..	..
Nagaland . . . . .	..	..	..
Tripura . . . . .	..	..	..
Arunachal Pradesh . . . . .	..	..	..
Mizoram . . . . .	..	..	..
SUB-TOTAL	477	28,944	28.24
TOTAL (ALL INDIA)	2,75,300	4,22,338	141.30+1,92,240 M.T. (B)

*LSHS=Low Sulphur Heavy Stock
HHS=Hot Heavy Stock
B=Refinery gas

TABLE No. 45—Contd.

State/U.Ts.	STEAM STATION		
	Heat Input (K. cal. × 109)	Gross Generation (GWH)	Average heat-input (K. cal./KWH)
Haryana	4,697.15	1,187.00	3,957
Himachal Pradesh . . . . .	..	..	..
Jammu & Kashmir	36.45	4.67	7,805
Punjab	6,543.09	1,966.58	3,327
Rajasthan	167.33	19.26	8,688
Uttar Pradesh	32,351.06	8,409.68	3,847
Chandigarh . . . . .	..	..	..
Delhi	4,732.80	1,387.10	3,412
Central Sector	14,490.48	4,276.85	3,388
SUB-TOTAL	63,018.36	17,251.14	3,653
Gujarat	30,713.81	10,283.33	2,987
Madhya Pradesh	27,313.07	8,000.49	3,414
Maharashtra	37,584.88	13,353.66	2,815
Goa, Daman & Diu . . . . .	..	..	..
D. & N. Haveli . . . . .	..	..	..
Central Sector	957.89	120.74	7,933
SUB-TOTAL	96,569.65	31,758.22	3,041
Bihar	8,957.27	2,610.41	3,431
Orissa	3,490.80	1,026.49	3,401
West Bengal	20,381.35	5,627.97	3,621
D. V. C.	19,816.57	5,861.29	3,381
A. & N. Islands	57.84	1.57	36,841
Sikkim . . . . .	..	..	..
SUB-TOTAL	52,703.83	15,127.73	3,484
Andhra Pradesh	15,977.68	5,562.40	2,872
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu	14,358.26	4,037.57	3,356
Pondicherry . . . . .	..	..	..
Lakshadweep . . . . .	..	..	..
Central Sector	12,805.44	3,832.70	3,341
SUB-TOTAL	43,141.38	13,432.67	3,212
Assam	1,460.18	344.05	4,244
Manipur . . . . .	..	..	..
Meghalaya . . . . .	..	..	..
Nagaland . . . . .	..	..	..
Tripura . . . . .	..	..	..
Arunachal Pradesh . . . . .	..	..	..
Mizoram . . . . .	..	..	..
SUB-TOTAL	1,460.18	344.05	4,244
TOTAL (ALL INDIA)	2,56,893.40	77,913.81	3,297

TABLE No. 45—Contd.

State/U.Ts.	GAS STATION	
	Natural Gas (million Cu. Mts.)	Generation (GWH)
Haryana . . . . .	..	..
Himachal Pradesh . . . . .	..	..
Jammu & Kashmir . . . . .	..	..
Punjab . . . . .	..	..
Rajasthan . . . . .	..	..
Uttar Pradesh . . . . .	..	..
Chandigarh . . . . .	..	..
Delhi . . . . .	..	..
Central Sector . . . . .	..	..
	SUB-TOTAL	..
Gujarat	17.50 MT+32,479 (oil)	83.71
Madhya Pradesh . . . . .	..	..
Maharashtra	378.42+262.23 M. T. (LSHS)+8,314 (oil)	..
Goa, Daman & Diu . . . . .	..	..
D. & N. Haveli . . . . .	..	..
Central Sector . . . . .	..	..
	SUB-TOTAL	378.42+17.50 MT (N. Gas)+262.23 MT (LSHS) +40,793 (oil)
Bihar . . . . .	..	..
Orissa . . . . .	..	..
West Bengal	93,718 (oil)	212.41
D. V. C. . . . .	..	..
A. & N. Islands . . . . .	..	..
Sikkim . . . . .	..	..
	SUB-TOTAL	93,718 (oil)
Andhra Pradesh . . . . .	..	..
Karnataka . . . . .	..	..
Kerala . . . . .	..	..
Tamil Nadu . . . . .	..	..
Pondicherry . . . . .	..	..
Lakshadweep . . . . .	..	..
Central Sector . . . . .	..	..
	SUB-TOTAL	..
Assam	295.08	552.19
Manipur . . . . .	..	..
Meghalaya . . . . .	..	..
Nagaland . . . . .	..	..
Tripura . . . . .	..	..
Arunachal Pradesh . . . . .	..	..
Mizoram . . . . .	..	..
	SUB-TOTAL	295.08
	TOTAL (ALL INDIA)	637.50+17.50 MT (N. Gas)+262.23 MT (LSHS) +1,34,511 (oil)

Oil=Oil in Kilo Litres.

MT=Metric Tonne.

TABLE No. 45—Contd.

State/U.Ts.	DIESEL STATION		
	Diesel Oil (K. Lits)	Generation (GWH)	Average Oil Consumed Lts./Kwh.
Haryana . . . . .	..	..	..
Himachal Pradesh	27	0.04	0.68
Jammu & Kashmir	20(E)	0.07	0.29
Punjab	65(E)	0.12	0.54
Rajasthan	30	0.06	0.50
Uttar Pradesh . . . . .	..	..	..
Chandigarh	17	0.05	0.34
Delhi	420(E)	1.30	0.32
Central Sector . . . . .	..	..	..
SUB-TOTAL	579	1.64	0.35
Gujarat	38	0.09	0.42
Madhya Pradesh . . . . .	..	..	..
Maharashtra . . . . .	..	..	..
Goa, Daman & Diu . . . . .	..	..	..
D. & N. Haveli . . . . .	..	..	..
Central Sector . . . . .	..	..	..
SUB-TOTAL	38	0.09	0.42
Bihar	293	0.76	0.38
Orissa . . . . .	..	..	..
West Bengal	1,746	4.95	0.35
D. V. C. . . . .	..	..	..
A. & N. Islands	4,304	10.78	0.40
Sikkim	1,050(E)	2.99	0.35
Central Sector . . . . .	..	..	..
SUB-TOTAL	7,393	19.48	0.38
Andhra Pradesh . . . . .	..	..	..
Karnataka . . . . .	..	..	..
Kerala . . . . .	..	..	..
Tamil Nadu . . . . .	..	..	..
Pondicherry . . . . .	..	..	..
Lakshadweep	1,009	2.20	0.46
Central Sector . . . . .	..	..	..
SUB-TOTAL	1,009	2.20	0.46
Assam . . . . .	..	..	..
Manipur	3,985	10.81	0.37
Meghalaya	415(E)	0.59	0.70
Nagaland	93	0.31	0.30
Tripura	350	1.36	0.26
Arunachal Pradesh	650(E)	2.32	0.28
Mizoram	1,980(E)	5.66	0.35
SUB-TOTAL	7,473	21.05	0.35
TOTAL (ALL INDIA)	16,492	44.46	0.37

(E)—Estimated.

TABLE No. 46

Classification of Steam Stations Efficiencywise during 1982-83

Overall Thermal Efficiency	No. of Generating stations	Aggregate installed capacity (MW)	Energy generated by the group (GWH)	% to total generation
Under 10%	21*	666.20	216.24	0.28
Above 10% & upto 15%	14	550.88	711.10	0.91
Above 15% & upto 20%	7	930.00	3,733.53	4.79
Above 20% & upto 25%	19	4,546.10	16,962.76	21.77
Above 25% & upto 30%	24	8,422.50	33,565.52	43.08
Above 30%	13	5,596.50	22,724.66	29.17
TOTAL	98	20,712.18	77,913.81	100.00

*Includes 6 power stations having total aggregate capacity of 439.25 MW and n.l generation.

TABLE No. 47
Salient Operating Data for Steam Power Station
(UTILITIES ONLY)
During 1982-83

Items	1981-82	1982-83	% Increase
(i) No. of Station	98	98	..
(ii) Aggregate installed capacity (MW)	18,695.18	20,712.18	10.79
(iii) Total energy generated (gross) (GWH)	68,747.10	77,913.81	13.33
(iv) Installed capacity of plants (above 50 MW)	18,137.50	20,170.00	11.21
(v) Energy generated from plants (above 50 MW)	67,520.68	76,762.45	13.69
(vi) KWH/KW installed from plants (above 50 MW)	3,723	3,806	..
(vii) Fuel used : (All Stations)			
(a) (i) Coal (Tonnes)	4,22,34,622	4,86,23,693	15.13
(ii) Average calorific value K. cal./kg.	4,333	4,394	..
(b) (i) Lignite (Tonnes)	46,46,596	53,69,241	15.55
(ii) Average calorific value K. cal./kg.	2,357	2,369	..
(c) (i) Wood (Tonnes)	4,932	7,730	56.73
(ii) Average calorific value K. cal./kg.	3,001	2,980	..
(d) (i) Furnace oil (K. Litres)	15,92,263	22,75,652	42.92
(ii) Average calorific value K. cal./Litres.	10,024	10,291	..
(e) (i) Diesel oil and Kerosene oil (K. Litres)	1,95,719	2,75,300	40.66
(ii) Average calorific value (K. cal./Litres.)	10,000	8,761	..
(f) (i) LSHS & HHS (Tonnes)	3,81,160	4,22,338	10.80
(ii) Average calorific value (K. cal./Litres.)	12,102	11,044	..
(g) Overall thermal efficiency for plants above MW (Average)	27.63	26.27	..
(h) Total fuel consumption (coal equivalent assuming calorific value as 5000 K. cal./Kg.) in Tonnes (All Stations)	4,40,77,698	5,13,78,680	16.56

TABLE No. 48
Actual Simultaneous Peak Demand@
Regionwise during 1982-83

Region	Month in which Demand was maximum	Actual Peak Demand (MW)
Northern	January, 1983	5,767
Western	February, 1983	6,200
Eastern	October, 1982	2,861
Southern	August, 1982	5,419
North-Eastern	November, 1982	298
All India Aggregate Peak Demand		20,545*

NOTE :—

*This is non-coincident aggregate of simultaneous Peak Demand of various regions in the country.

@Figures of Peak Demand are of actual simultaneous Peak Demand on the system irrespective of Power restrictions.

Sources—Annual Reports of Regional Electricity Boards.

TABLE No. 49

Manpower engaged in State Electricity Boards, D.V.C. & D.E.S.U. as on 31-3-83 as reported by State Electricity Boards

Name of Electricity Board/Undertaking	REGULAR			
	Managerial and higher executive	Technical and Scientific officers	Technical supervisory staff	Technicians and operation staff
1	2	3	4	5
<i>Northern Region</i>				
1. Haryana	12	1,024	2,342	19,546
2. Punjab (A)	13	1,720	3,645	27,366
3. Rajasthan . . . . .	..	..	..	36,352@
4. D. E. S. U.	3	515	1,261	18,143
<i>Western Region</i>				
5. Madhya Pradesh	27	2,680	3,977	23,196
6. Maharashtra	35	5,194	10,151	55,849
<i>Eastern Region</i>				
7. D. V. C.	13	1,101	601	4,768
8. Orissa	7	1,453	..	25,670*
9. West Bengal	8	1,499	..	21,471*
<i>Southern Region</i>				
10. Andhra Pradesh	19	1,175	4,070	34,202
11. Karnataka	4	2,054	1,487	12,282
12. Kerala	12	786	1,413	22,259
13. Tamil Nadu	18	1,971	4,020	57,960

NOTE :—Data in respect of State Electricity Boards of H.P., J. & K., Uttar Pradesh, Gujarat, Bihar, Assam and Meghalaya are not available.

@Break up not available (includes Col. 2, 3, & 4)

(A) Approximate figures

*Includes Technical Supervisory staff.

TABLE No. 49—Contd.

Name of Electricity Board/Undertaking	REGULAR		NON-REGULAR	
	Non-Technical	Total Regular (1+5)	Technical Trainees and Apprentices	Work charge staff
5	6	7	8	9
<i>Northern Region</i>				
1. Haryana	9,956	32,880	1,122	6,736
2. Punjab	10,259	49,476	..	20,000
3. Rajasthan	13,553	49,905	..	8,738
4. D. E. S. U.	6,490	26,412	..	..
<i>Western Region</i>				
5. Madhya Pradesh	22,116	62,994	1,121	2,515
6. Maharashtra	17,815	89,044	Data not available	
<i>Eastern Region</i>				
7. D. V. C.	11,071	17,554	36	..
8. Orissa . . . . .	..	27,130	890	5,200
9. West Bengal	302	38,907	Data not available	
<i>Southern Region</i>				
10. Andhra Pradesh	10,665	50,131	196	3,789
11. Karnataka	19,336	35,163	627	10,175
12. Kerala	10,722	35,192	Data not available	
13. Tamil Nadu	23,730	87,699	Data not available	

TABLE No. 49—Contd.

Name of Electricity Board/Undertaking	Casual	Total Non-Regular (8+9+10)	Total Regular & Non-regular (7+11)
1	10	11	12
<i>Northern Region</i>			
1. Haryana	3,368	11,226	44,106
2. Punjab . . . . .	..	20,000	69,476
3. Rajasthan . . . . .	..	8,738	58,643
4. D. E. S. U.	@@	..	26,412*
<i>Western Region</i>			
5. Madhya Pradesh	28,636	32,272	95,266
6. Maharashtra	Data not available		89,044*
<i>Eastern Region</i>			
7. D. V. C.	1,630	1,666	19,220
8. Orissa	8,426	14,516	41,646
9. West Bengal	Data not available		38,907*
<i>Southern Region</i>			
10. Andhra Pradesh	380	4,365	54,496
11. Karnataka . . . . .	..	10,802	45,965
12. Kerala	Data not available		35,192*
13. Tamil Nadu	Data not available		87,699*

*Figures pertain to regular employees only.

@@Included in col. 9

SECTION VII
TRANSMISSION & DISTRIBUTION

TRANSMISSION AND DISTRIBUTION

I. Transmission and Distribution Lines:

An extensive network of Transmission and Distribution lines has been developed over the years for evacuating power produced in the various generating stations and distributing the same to the consumers. Depending upon the quantum of power and the distance involved, lines of appropriate voltages are laid. The nominal Extra High Voltage lines in vogue are 400 KV, 230/220 KV, 110 KV and 66 KV. 400 KV E.H.V. lines have been introduced so far by the SEB's of U. P., M.P., Maharashtra and B.B.M.B. (Punjab) only.

The standard voltages of operation on the distribution side are 33 KV, 22 KV, 400/230 Volts besides 6.6 KV, 3.3 KV and 2.2 KV. The low Voltage system has 3 phase 4 Wires giving 400/420 Volts between 2 phases and 230/240 Volts between phase and Neutral. This has been universally adopted in the country.

The table below depicts the length of lines operating at various voltages as on 31-3-1983 with comparative increase over previous year :-

Voltages	Length of Lines (Ckt Kms)		% Increase
	31-3-1982	31-3-1983	
400 KV	2,529	3,265	29.10
230/220 KV	34,531	38,033	10.14
132/110/90 KV	64,127	65,435	2.04
78/66 KV	27,846	28,279	1.55
33/22 KV	1,69,874	1,76,035	3.63
15/11 KV	8,31,722	8,85,196	6.43
6.6/3.3/2.2 KV	6,485	6,705	3.39
Distribution lines upto 500 volts	15,55,972	16,62,364	6.84
TOTAL	26,93,086	28,63,312	6.39

The state of Tamil Nadu has the largest T & D Network of 359489 ckt kms. Apart from Tamil Nadu, State of Punjab, Haryana, Rajasthan, Uttar Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Bihar, Andhra Pradesh and Karnataka have more than 1 lakh ckt kms. of T & D Lines.

II. Transformers:

The total number of step up transformers installed at various Generating Stations and Sub-stations in the country as on 31st March 1983 were 1247 having aggregate capacity of 43886.14 MVA. The number and capacity of step down and distribution Transformers as on same date were 12235 and 636522 numbers with aggregate capacity of 120482.63 MVA and 50599.34 respectively.

TABLE No. 50

Length of transmission and distribution lines regionwise/statewise as on 31st March 1983

Region	State/U.Ts.	Total	(Circuit Kilometres)		
			400 KV (O.H.)	230 KV (O.H.)	220 KV (O.H.)
<i>Northern Region</i>	Haryana	1,18,469	..	..	..
	Himachal Pradesh	34,470	..	..	..
	Jammu & Kashmir	36,713	..	..	124
	Punjab	1,41,195	270	..	3,763
	Rajasthan	1,76,136	..	..	2,114
	Uttar Pradesh	3,02,474	1,214	..	4,008
	Chandigarh	1,140	..	..	..
	Delhi	20,344	..	..	280
	SUB-TOTAL	8,30,941	1,484	..	10,289
<i>Western Region</i>	Gujarat	1,73,089	..	..	3,817
	Madhya Pradesh	2,73,273	457	..	4,594
	Maharashtra	3,13,686	1,324	..	4,440
	Goa, Daman & Diu	8,112	..	..	24
	D & N. Haveli	538	..	..	..
	SUB-TOTAL	7,68,698	1,781	..	12,875
<i>Eastern Region</i>	Bihar	1,15,594	..	..	994
	Orissa	76,503	..	..	1,456
	West Bengal	81,475	..	..	1,326
	D.V.C.	3,976	..	..	259
	A. & N. Islands	996	..	..	..
	Sikkim	631	..	..	..
	SUB-TOTAL	2,79,175	..	..	4,035
<i>Southern Region</i>	Andhra Pradesh	2,41,317	..	..	3,180
	Karnataka	2,45,535	..	..	3,798
	Kerala	87,921	..	..	887
	Tamil Nadu	3,59,489	..	2,712	..
	Pondicherry	3,169	..	..	..
	Lakshadweep	93	..	..	..
	SUB-TOTAL	9,37,524	..	2,712	7,865
<i>North Eastern Region</i>	Assam	28,662	..	..	257
	Manipur	2,371	..	..	..
	Meghalaya	5,535	..	..	..
	Nagaland	4,364	..	..	..
	Tripura	4,079	..	..	..
	Arunachal Pradesh	3,090	..	..	..
	Mizoram	873	..	..	..
	SUB-TOTAL	48,974	..	..	257
	TOTAL (ALL INDIA)	28,65,312	3,265	2,712	35,321

TABLE NO. 50—Contd.

(Ckt. Kms.)

Name of State/U.Ts.	132 KV	110/90 KV	78/66 KV	33 KV	
	(OH)	(OH)	(OH)	(OH)	(OH)
Haryana	1,418	..	1,015	3,450	..
Himachal Pradesh	126	..	87	1,229	..
Jammu & Kashmir	420	..	191	1,176	..
Punjab	2,256	..	2,163	3,280	..
Rajasthan	5,236	..	414	15,168	..
Uttar Pradesh	8,631	..	1,973	20,554	185
Chandigarh . . . . .	..	..	..	33	..
Delhi . . . . .	..	..	129	341	372
SUB-TOTAL	18,087	..	5,972	45,231	557
Gujarat	3,543	..	6,304	2,781	..
Madhya Pradesh	7,569	..	362	23,236	..
Maharashtra	4,566	2,484(A)	3,051	11,229	168
Goa, Daman & Diu . . . . .	..	77	6	602	..
D & N. Haveli . . . . .	..	..	16	..	..
SUB-TOTAL	15,678	2,561	9,739	37,848	168
Bihar	3,883	..	..	9,132	..
Orissa	2,914	..	333	7,745	10
West Bengal	2,348(A)	..	708	3,767(A)	545
D.V.C.	2,963	..	..	739	..
A. & N. Islands . . . . .	..	..	..	100	..
Sikkim . . . . .	..	..	40	..	..
SUB-TOTAL	12,108	..	1,081	21,483	555
Andhra Pradesh	4,031(A)	..	2,107(A)	12,080	..
Karnataka . . . . .	..	4,287	3,399	3,411	..
Kerala . . . . .	..	1,596(A)	2,287	..	..
Tamil Nadu . . . . .	..	5,229	2,940	3,654	147
Pondicherry . . . . .	..	30	..	..	..
Lakshadweep . . . . .	..	..	..	..	..
SUB-TOTAL	4,031	11,142	10,733	19,145	147
Assam	1,046(A)	..	554	4,255	..
Manipur	127	..	..	93	..
Meghalaya	435	..	..	961	..
Nagaland	72	..	..	799	..
Tripura	148	..	98	309	..
Arunachal Pradesh . . . . .	..	..	..	549	..
Mizoram . . . . .	..	..	120	61(A)	..
SUB-TOTAL	1,828	..	754	7,027	..
TOTAL (ALL INDIA)	51,732	13,703	28,279	1,30,734	1,427

(A) In certain class of voltage figures have gone down as compared to previous year due to revision or wrongly reported data by State Electricity Board.

TABLE No. 50—(Contd.)

State/U.Ts.	22/20 KV		15/11 KV		6.6 KV	
	(O.H.)	(U.G.)	(O.H.)	(U.G.)	(O.H.)	(U.G.)
Haryana . . . . .	..	..	38,857	..	..	..
Himachal Pradesh	2,556	..	7,494	..	..	..
Jammu & Kashmir . . . . .	..	..	10,208	..	..	..
Punjab . . . . .	..	..	43,472	..	70	52
Rajasthan . . . . .	..	..	62,771	..	60	..
Uttar Pradesh . . . . .	..	..	1,32,401	1,106	301	576
Candigarh . . . . .	..	..	456	@	..	..
Delhi . . . . .	..	..	1,965	2,989	..	..
SUB-TOTAL	2,556	..	2,97,624	4,095	431	628
Gujarat	9,525	..	60,483	1,167	..	..
Madhya Pradesh . . . . .	..	..	89,898	..	4	..
Maharashtra	10,143(A)	517(A)	83,422	2,072	59	139
Goa, Daman & Diu . . . . .	..	..	1,623	..	..	..
D. & N. Haveli . . . . .	..	..	212	..	..	..
SUB-TOTAL	19,668	517	2,35,638	3,239	63	139
Bihar . . . . .	..	..	43,806	..	..	..
Orissa . . . . .	..	..	32,640	189	..	..
West Bengal	60	..	38,683	364(A)	415 (A)	2,184
D.V.C. (R) . . . . .	..	..	15	..	..	..
A. & N. Islands . . . . .	..	..	323	..	..	..
Sikkim . . . . .	..	..	266	25	..	..
SUB-TOTAL	60	..	1,15,733	578	415	2,184
Andhra Pradesh . . . . .	..	..	77,126	22	..	..
Karnataka . . . . .	..	..	64,960	392	..	..
Kerala . . . . .	..	..	15,936	..	192	..
Tamil Nadu	20,618	1	49,117	1,235	..	..
Pondicherry	450	4	145	..	..	..
Lakshadweep . . . . .	..	..	..	..	..	..
SUB-TOTAL	21,068	5	2,17,284	1,649	192	..
Assam . . . . .	..	..	11,972	..	..	..
Manipur . . . . .	..	..	848	..	..	..
Meghalaya . . . . .	..	..	2,564	..	..	..
Nagaland . . . . .	..	..	1,557	..	..	..
Tripura . . . . .	..	..	1,739	..	..	..
Arunachal Pradesh . . . . .	..	..	576	..	..	..
Mizoram . . . . .	..	..	100(A)	..	..	..
SUB-TOTAL . . . . .	..	..	19,356	..	..	..
TOTAL (ALL INDIA)	43,352	522	8,75,635	9,561	1,101	2,951

@ included in O.H.

TABLE NO. 50—(Contd.)

Name of State/U.Ts.	3.3/2.2 KV		Distribution lines up to 500 Volts
	(O.H.)	(U.G.)	
Haryana . . . . .	..	..	73,729
Himachal Pradesh	3	41	22,934
Jammu & Kashmir . . . . .	..	..	24,594
Punjab . . . . .	..	..	85,869
Rajasthan	49	..	90,324
Uttar Pradesh	124	294	1,31,107
Chandigarh . . . . .	..	..	651
Delhi . . . . .	..	..	14,268
Sub-TOTAL	176	335	4,43,476
Gujarat	12	117	85,340
Madhya Pradesh	23	..	1,47,130
Maharashtra	16	2	1,90,054
Goa, Daman & Diu . . . . .	..	..	5,780
D. & N. Haveli . . . . .	..	..	310
Sub-TOTAL	51	119	4,28,614
Bihar . . . . .	..	..	57,779
Orissa . . . . .	..	..	31,216
West Bengal	60	39(A)	30,976
D.V.C. (R) . . . . .	..	..	..
A. & N. Islands . . . . .	..	..	573
Sikkim	18	..	282
Sub-TOTAL	78	39	1,20,826
Andhra Pradesh . . . . .	..	..	1,42,771
Karnataka	1,730	74	1,63,484
Kerala	35	..	66,988
Tamil Nadu . . . . .	..	..	2,73,836
Pondicherry	7	..	2,533
Lakshadweep	9	..	84(A)
Sub-TOTAL	1,781	74	6,49,696
Assam . . . . .	..	..	10,578
Manipur . . . . .	..	..	1,303
Meghalaya . . . . .	..	..	1,375
Nagaland . . . . .	..	..	1,936
Tripura . . . . .	..	..	1,785
Arunachal Pradesh . . . . .	..	..	1,965
Mizoram . . . . .	..	..	610
Sub-TOTAL . . . . .	..	..	19,752
TOTAL (ALL INDIA)	2,086	567	16,62,364

TABLE No. 51

Length of transmission and distribution lines in State Electricity Boards as on 31st March, 1983

(Circuit Kilometres)

Region	State/U.Ts.	Total	400 KV	230 KV	220 KV
			(O.H.)	(O.H.)	(O.H.)
<i>Northern Region</i>	Haryana	1,18,469	1.	..	..
	Himachal Pradesh	34,470	..	..	..
	Jammu & Kashmir	36,713	..	..	124
	Punjab	1,37,426	..	..	971
	Rajasthan	1,75,418	..	..	2,114
	Uttar Pradesh	2,99,970	1,157	..	4,008
	SUB-TOTAL	8,02,466	1,157	..	7,217
<i>Western Region</i>	Gujarat	1,66,618	..	..	3,817
	Madhya Pradesh	2,69,297	260	..	4,594
	Maharashtra	2,96,849	1,324	..	4,440
	SUB-TOTAL	7,32,764	1,584	..	12,851
<i>Eastern Region</i>	Bihar	1,14,307	..	..	994
	Orissa	75,823	..	..	1,456
	West Bengal	72,398	..	..	1,326
	SUB-TOTAL	2,62,528	..	..	3,776
<i>Southern Region</i>	Andhra Pradesh	2,32,789	..	..	3,180
	Karnataka	2,43,365	..	..	3,798
	Kerala	87,451	..	..	887
	Tamil Nadu	3,56,677	..	2,712	..
	SUB-TOTAL	9,20,282	..	2,712	7,865
<i>North Eastern Region</i>	Assam	28,662	..	..	257
	Meghalaya	5,535	..	..	..
	SUB-TOTAL	34,197	..	..	257
	TOTAL (ALL INDIA)	27,52,237	2,741	2,712	31,966

TABLE No. 51—Contd.

State/U.Ts.	(Circuit Kilometres)				
	132/KV	110/90 KV	78/66 KV		33 KV
	(O.H.)	(O.H.)	(O.H.)	(O.H.)	(U.G.)
Haryana	1,418	..	1,015	3,450	..
Himachal Pradesh	126	..	87	1,229	..
Jammu & Kashmir	420	..	191	1,176	..
Punjab	2,238	..	2,018	3,280	..
Rajasthan	5,236	..	414	15,168	..
Uttar Pradesh	8,631	..	1,973	20,554	185
SUB-TOTAL	18,069	..	5,698	44,857	185
Gujarat	3,478	..	6,184	2,781(A)	..
Madhya Pradesh	7,569	..	362	23,236	..
Maharashtra	4,566	1,512	3,051	11,229	..
SUB-TOTAL	15,613	1,512	9,597	37,246	..
Bihar	3,883	..	..	9,132	..
Orissa	2,914	..	333	7,743	10
West Bengal	2,292(A)	..	708	3,717(A)	29
SUB-TOTAL	9,089	..	1,041	20,592	39
Andhra Pradesh	4,031	..	1,894	12,080	..
Karnataka . . . . .	..	4,287	3,399	3,411	..
Kerala . . . . .	..	1,596	2,287	..	..
Tamil Nadu . . . . .	..	5,229	2,940	3,654	147
SUB-TOTAL	4,031	11,112	10,520	19,145	147
Assam	1,046(A)	..	554	4,255	..
Meghalaya	435	..	..	961	..
SUB-TOTAL	1,481	..	554	5,216	..
TOTAL (ALL INDIA)	48,283	12,624	27,410	1,27,056	371

(A) In certain class of voltage, figures have gone down as compared to previous year due to revision or wrongly reported data by State Electricity Board.

TABLE No. 51—Contd.

(Circuit Kilometres)

State/U.Ts.	22 KV		15/11 KV		6.6 KV	
	(O.H.)	(U.G.)	(O.H.)	(U.G.)	(O.H.)	(U.G.)
Haryana . . . . .	..	..	38,857	..	..	..
Himachal Pradesh	2,556	..	7,494	..	..	..
Jammu & Kashmir . . . . .	..	..	10,208@	..	..	..
Punjab . . . . .	..	..	43,350	..	..	..
Rajasthan . . . . .	..	..	62,592	..	60	..
Uttar Pradesh . . . . .	..	..	1,31,076	1,106	301	576
SUB-TOTAL	2,556	..	2,93,577	1,106	361	576
Gujarat	9,525	..	59,970	..	..	..
Madhya Pradesh . . . . .	..	..	88,561	..	4	..
Maharashtra	9,947	114	82,148	256	..	..
SUB-TOTAL	19,472	114	2,30,679	256	4	..
Bihar . . . . .	..	..	43,398	..	..	..
Orissa . . . . .	..	..	32,357	189	..	..
West Bengal . . . . .	..	..	37,995	300(A)	404(A)	244(A)
SUB-TOTAL . . . . .	..	..	1,13,750	489	404	244
Andhra Pradesh . . . . .	..	..	74,408	..	..	..
Karnataka . . . . .	..	..	64,380	392	..	..
Kerala . . . . .	..	..	15,778	..	3	..
Tamil Nadu	20,608	1	48,647	1,192	..	..
SUB-TOTAL	20,608	1	2,03,213	1,584	3	..
Assam . . . . .	..	..	11,972	..	..	..
Meghalaya . . . . .	..	..	2,564	..	..	..
SUB-TOTAL . . . . .	..	..	14,536	..	..	..
TOTAL (ALL INDIA)	32,636	115	8,55,755	3,435	772	820

TABLE No. 51—Contd.

Name of State/U.Ts.	3.3/2.2 KV		Distribution lines upto 500 Volts.
	(O.H.)	(U.G.)	
Haryana . . . . .	..	..	73,729
Himachal Pradesh	3	41	22,934
Jammu & Kashmir . . . . .	..	..	24,594
Punjab . . . . .	..	..	85,569
Rajasthan	49	..	89,785
Uttar Pradesh	124	294	1,29,985
SUB-TOTAL	176	335	4,26,596
Gujarat . . . . .	..	..	80,863@
Madhya Pradesh	23	..	1,44,688
Maharashtra . . . . .	..	..	1,78,262@
SUB-TOTAL	23	..	4,03,813
Bihar . . . . .	..	..	56,900
Orissa . . . . .	..	..	30,821
West Bengal	13	38	25,332
SUB-TOTAL	13	38	1,13,053
Andhra Pradesh . . . . .	..	..	1,37,196
Karnataka	1,730	74	1,61,894
Kerala	35	..	66,865
Tamil Nadu . . . . .	..	..	2,71,547
SUB-TOTAL	1,765	74	6,37,502
Assam . . . . .	..	..	10,578
Meghalaya . . . . .	..	..	1,575
SUB-TOTAL . . . . .	..	..	12,153
TOTAL (ALL INDIA)	1,977	447	15,93,117

NOTE :—@—Includes line length of 3.3 & 6.6 KV also since break up of which is not available.

—In certain cases, 1982-83 figures may not be consistent with the last year figures because of estimation of data due to improper reporting or revision of data by Electricity Board.

TABLE No. 52

Number of Transformers and their aggregate capacity (Utilities only)
Regionwise/statewise as on 31st March, 1983

Region	State/U.Ts.	Step-up		Step-down	
		Number	Aggregate Capacity (KVA)	Number	Aggregate Capacity (KVA)
Northern Region	Haryana	6	5,10,000	422	27,21,170
	Himachal Pradesh	44	3,25,250	117	2,59,678
	Jammu & Kashmir (R)	57	3,01,000	73	3,25,000
	Punjab	63	39,79,010	560	95,67,670
	Rajasthan	29	8,54,725(A)	1,269	53,50,695
	Uttar Pradesh	130	52,63,625	2,206	1,96,81,300
	Chandigarh	2	1,500	9	62,000
	Delhi	14	14,20,000	147	25,18,000
	SUB-TOTAL	345	1,26,55,110	4,803	4,04,85,513
Western Region	Gujarat	44	34,10,420	586	92,95,250
	Madhya Pradesh	32	27,14,000	1,230	85,23,350
	Maharashtra	108	62,08,000	897	2,38,06,057
	Goa, Daman & Diu . . . . .	..	..	31	3,11,750
	D. & N. Haveli (R) . . . . .	..	..	12	10,000
		SUB-TOTAL	184	1,23,32,420	2,756	4,19,46,447
Eastern Region	Bihar	41	13,77,800	650	38,06,700
	Orissa	40	14,98,650	430	19,82,760
	West Bengal	108	18,24,685	560	51,74,518
	D.V.C.	25	19,64,500	71	22,54,540
	A. & N. Islands	17	9,275	..	..
	Sikkim	11	17,950	6	20,750
		SUB-TOTAL	242	66,92,860	1,717	1,32,39,268
Southern Region	Andhra Pradesh	116	34,55,980	1,052	71,63,830
	Karnataka	59	23,40,500	494	48,04,664
	Kerala	36	11,97,975	227(A)	32,87,900
	Tamil Nadu	144	46,59,100	890	86,78,450
	Pondicherry . . . . .	..	..	6	60,000
	Lakshadweep	2	565	..	..
		SUB-TOTAL	357	1,16,54,120	2,665	2,39,94,844
North Eastern Region	Assam (R)	41	3,61,707	177	5,89,063
	Manipur	15	10,200	12	43,300
	Meghalaya	14	1,50,550	43	70,290
	Nagaland	4	1,500	40	52,100
	Tripura	2	11,760	17	52,760
	Arunachal Pradesh	27	9,915	1	300
	Mizoram	16	6,000	4	8,750
		SUB-TOTAL	119	5,51,632	294	8,16,563
	TOTAL (ALL INDIA)	1,247	4,38,86,142	12,235	12,04,82,635

(A)—Figure has gone down as compared to previous year due to revision of figures by Board/Electricity Departmentory by deletion/failure of transformers.

TABLE No. 52—Contd.

State/U.Ts.	Distribution	
	Number	Aggregate Capacity (KVA)
Haryana	35,992	27,40,520
Himachal Pradesh	3,836	2,36,396
Jammu & Kashmir	2,700	3,50,000
Punjab	42,266	32,32,627
Rajasthan	41,258	28,12,866
Uttar Pradesh	1,26,694	65,71,871
Chandigarh	471	1,32,078
Delhi	3,619	18,38,885
SUB-TOTAL	2,56,836	1,79,15,243
Gujarat	57,273	46,33,741
Madhya Pradesh	46,805	31,88,051
Maharashtra	54,417	66,87,331
Goa, Daman & Diu	1,173	94,825
D. & N. Haveli (R)	85	4,879
SUB-TOTAL	1,59,753	1,46,08,827
Bihar	24,629	20,12,911
Orissa	14,232	9,08,744
West Bengal	21,440	15,43,127
D.V.C.	33	3,675
A. & N. Islands	100	9,005
Sikkim	130	11,500
SUB-TOTAL	60,564	44,88,962
Andhra Pradesh	44,541	32,53,141
Karnataka	38,701	26,00,844
Kerala	12,205	12,74,043
Tamil Nadu	56,617	57,07,467
Pondicherry	674	79,450
Lakshadweep	10	590
SUB-TOTAL	1,52,568	1,29,15,535
Assam (R)	3,695	4,69,111
Manipur	331	20,734
Meghalaya	840	46,036
Nagaland	567	37,759
Tripura	928	58,388
Arunachal Pradesh	308	21,481
Mizoram	132	17,266
SUB-TOTAL	6,801	6,70,775
TOTAL (ALL INDIA)	6,36,522	5,05,99,342

(R)—Data of 1981—82 repeated due to non-availability of information.

TABLE NO. 53

Number of Transformers and their aggregate capacity (Utilities only) in State Electricity Board as on 31st March, 1986

Region	State/U.Ts.	Step-up Transformers		Step-down Transformers	
		Number	Aggregate Capacity (KVA)	Number	Aggregate Capacity (KVA)
Northern Region	Haryana	6	5,10,000	422	27,21,170
	Himachal Pradesh (R)	42	1,75,250	117	2,59,678
	Jammu & Kashmir (R)	57	3,01,000	73	3,25,000
	Punjab	21	8,87,010	477	60,29,670
	Rajasthan	27	3,54,725	1,263	52,74,695
	Uttar Pradesh	128	47,83,625	2,206	1,96,81,300
	SUB-TOTAL	281	70,11,610	4,558	3,42,91,513
Western Region	Gujarat	31	29,15,420	542	86,64,750
	Madhya Pradesh	31	24,74,000	1,230	85,23,350
	Maharashtra	76	48,67,000	655(E)	2,00,34,552
	SUB-TOTAL	138	1,02,56,420	2,427	3,72,22,672
Eastern Region	Bihar	41	13,77,800	650	38,06,700
	Orissa	40	14,98,650	430	19,82,760
	West Bengal	89	13,65,485	414	31,24,518
	SUB-TOTAL	170	42,41,935	1,494	89,13,978
Southern Region	Andhra Pradesh	98	33,20,800	1,048	71,60,330
	Karnataka	59	23,40,500	494	48,04,664
	Kerala	36	11,97,975	223	32,87,900
	Tamil Nadu	133	36,74,100	871	83,38,450
	SUB-TOTAL	326	1,05,33,375	2,636	2,35,91,344
North Eastern Region	Assam (R)	41	3,61,707	177	5,89,063
	Meghalaya	14	1,50,550	43	70,290
	SUB-TOTAL	55	5,12,257	220	6,59,353
	TOTAL (ALL INDIA)	970	32,55,597	11,335	10,46,78,860

(A)—Figures has gone down as compared to previous year due to revision/deletion/failure of transformers by Board/ Electricity Deptt.

TABLE NO. 53—(Contd.)

State/U.Ts.	Distribution	Transformers
	Number	Aggregate Capacity (KVA)
Haryana	35,992	27,40,520
Himachal Pradesh	3,836	2,36,396
Jammu & Kashmir (R)	2,700	3,50,000
Punjab	42,034	31,43,047
Rajasthan	41,243	27,94,116
Uttar Pradesh	1,25,352	65,27,044
SUB-TOTAL	2,51,157	1,57,91,123
Gujarat	55,488	41,21,485
Madhya Pradesh	45,902	31,25,923
Maharashtra	50,540(E)	53,28,515
SUB-TOTAL	1,51,930	1,25,75,923
Bihar	24,401	19,87,282
Orissa	14,068	9,00,380
West Bengal	19,797	9,96,007
SUB-TOTAL	58,266	38,83,669
Andhra Pradesh	42,977	31,44,032
Karnataka	38,245	25,75,959
Kerala	11,889	12,59,110
Tamil Nadu	55,923	56,30,014
SUB-TOTAL	1,49,034	1,26,09,115
Assam (R)	3,695	4,69,111
Meghalaya	840	46,036
SUB-TOTAL	4,535	5,15,147
TOTAL (ALL INDIA)	6,14,922	4,53,74,977

NOTE:—(1) In certain cases capacity of step-up transformers in respect of generating sets added during the year have not been reported, as such, capacity of step-up transformers for these units have been estimated.

(2) In certain cases number and aggregate capacity of transformers have gone down as compared to last year due to estimation of data because of improper reporting or revision of data by state Electricity Boards at later states.

SECTION VIII
UTILISATION

UTILISATION

I. Energy Consumption

Electricity consumption by various categories of consumers served by utilities during the year under review was 95588.57 Gwh registering an increase of 5.92 over the previous year.

As in the preceding year, the major portion of electricity viz. 86258.64 Gwh representing 90.24% of the total energy consumption was distributed by the Public Sector and remaining 9.76% was distributed by the Private Sector. Out of the 90.36% of energy distributed by the Public Sector, 80.39% was sold by the 18 State Electricity Boards and balance 9.85% was supplied by the Municipalities and Electricity Departments of States and Union Territories. Out of 9.76% of energy distributed by the whole Private Sector, the 3 major private licensees viz. Tata Electric Companies, Calcutta Electric Supply corporation and Ahmedabad Electricity Supply Company distributed 1.87%, 3.00% and 1.76% of energy to its consumers respectively. The details of energy sold by various agencies are enumerated in the following table:—

Sl. No.	Ownership	Energy sold to ultimate consumers	% to total consumers U	% increase over 1981-82
1.	State Electricity Boards	76,840.26	80.39	7.22
2.	Electricity Departments	4,571.22	4.78	3.38
3.	Municipalities (including DESU)	4,847.16	5.07	6.43
4.	Private Licensees (including Co-operatives)	9,329.93	9.76	(-) 2.86
TOTAL		95,588.57	100.00	5.92

As regards the energy consumed by various classes of consumers, the industrial category of consumers, as usual consumed highest energy and was 55.41% of the total energy sold by public utilities as compared to 58.80% during 1981-82. The energy sales to industrial consumers registered an increase of (-) 0.18% over the previous years.

Agricultural consumers remained the second largest category amongst the consumers of electricity, consuming 18.64% of total energy sales as compared to 16.84% during the previous year. Percentage increase in consumption of energy by agricultural consumers being 17.21% compared to previous year.

II. Per Capita Consumption

The per capita consumption of electricity in the country was 147.05 Kwh during 1982-83 as compared to 141.27 Kwh during 1981-82. Western region had the maximum per capital consumption of 205.09 Kwh followed by southern, Northern, Eastern and North Eastern Regions with figures of 154.10, 144.67, 104.57, and 37.21 respectively.

Among the states, Punjab with per capita consumption of 335.26 Kwh was at the top followed by Haryana, Gujarat and Maharashtra having per capita of 257.89, 255.07 and 248.01 Kwh respectively. However, Union Territory of Delhi had the highest per capita consumption of electricity of 433.88 Kwh in the country during the year followed by Chandigarh (383.34 Kwh).

III Electrical Accidents

While utilising the electricity, several accidents occurred at various electrical installations. During the year 1982-83, total number of electrical accidents reported were 6908 which comprised of 2484 fatal, 1501 non-fatal accidents of human, and 2771 fatal and 152 non-fatal accidents of animals. Corresponding figures for the year 1981-82 were 1715 fatal, 1923 non-fatal accidents to human and 2771 fatal and 2 non-fatal accidents of animals.

The various tables in the Section depict the energy consumed by different categories of consumers, in various States/ Electricity Boards etc.; per capita consumption of electricity and electrical accidents.

TABLE NO. 54

All India energy sales (Utilities only) during 1982-83

Category	Energy sold during 1981-82 (GWH)	% to total sales in 1981-82	Energy sold during 1982-83 (GWH)	% to total sales in 1982-83	% increase in sale over previous year 1981-82
Domestic	10,439.62	11.57	12,091.63	12.65	15.82
Commercial	5,194.41	5.76	5,846.25	6.12	12.55
Industrial Power	53,063.79	58.80	52,967.36	55.41	(-)0.16
Public Lighting	812.72	6.90	835.79	0.87	2.84
Railways/Tramways	2,504.72	8.78	2,632.60	2.75	5.11
Agriculture	15,201.16	16.84	17,816.84	18.64	17.21
Public Water Works and Sewage pumping	1,673.60	1.85	1,757.36	1.84	5.00
Miscellaneous	1,355.31	1.50	1,640.74	1.72	21.06
TOTAL	90,245.33	100.00	95,588.57	100.00	5.92

TABLE NO: 55

Energy sales to ultimate consumers (utilities only)
Ownershipwise-Regionwise/Statewise during the year 1982-83

Region	State/U.Ts.	Total Energy Sold (GWH)	PUBLIC SECTOR	
			State Electricity Board	
			(GWH)	% to total
<i>Northern Region</i>	Haryana	3,326.20	3,326.20	100.00
	Himachal Pradesh	333.41	324.52	97.33
	Jammu & Kashmir	669.35	532.57	94.51
	Punjab	5,806.82	5,018.79	86.43
	Rajasthan	3,280.68	3,257.51	99.29
	Uttar Pradesh	9,855.44	9,821.43	99.65
	Chandigarh	190.70	..	..
	Delhi	2,720.00	..	..
	SUB-TOTAL	26,182.60	22,381.02	85.48
<i>Western Region</i>	Gujarat	8,400.92	6,061.47	72.15
	Madhya Pradesh	5,860.60	5,819.85	99.30
	Maharashtra	15,392.18	10,021.27	65.11
	Goa, Daman & Diu	226.09	..	..
	D & N Haveli	8.85	..	..
		SUB-TOTAL	29,888.64	21,902.59	73.28
<i>Eastern Region</i>	Bihar	4,729.11	2,964.20	62.68
	Orissa	2,667.01	2,662.98	99.85
	West Bengal	6,218.48	1,987.88	31.97
	A & N Islands	11.37	..	..
	Sikkim	16.48	..	..
		SUB-TOTAL	13,642.45	7,615.06	55.82
<i>Southern Region</i>	Andhra Pradesh	7,056.08	6,991.83	99.09
	Karnataka	6,227.33	6,208.00	99.69
	Kerala	2,929.68	2,893.88	98.78
	Tamil Nadu	8,579.09	8,029.00	93.59
	Pondicherry	145.48	..	..
	Lakshadweep	1.78	..	..
		SUB-TOTAL	24,939.44	24,122.71	96.72
<i>North Eastern Region</i>	Assam	745.81	745.81	100.00
	Manipur	19.72	..	..
	Meghalaya	73.07	73.07	100.00
	Nagaland	28.50	..	..
	Tripura	42.91	..	..
	Arunachal Pradesh	15.01	..	..
	Mizoram	10.42	..	..
		SUB-TOTAL	935.44	818.88	87.54
	TOTAL (ALL INDIA)	95,588.57	76,840.26	80.39

TABLE NO. 55—Contd.

State/U.Ts.	PUBLIC SECTOR			
	Municipalities		Govt. Depts/Govt. Undertaking/ Corporation	
	(GWH)	% to total	(GWH)	% to total
Haryana . . . . .	..	..	..	..
Himachal Pradesh . . . . .	..	..	8.89	2.67
Jammu & Kashmir . . . . .	..	..	25.77	3.85
Punjab	163.34	2.81	624.69	10.76
Rajasthan . . . . .	..	..	13.44	0.41
Uttar Pradesh . . . . .	..	..	..	..
Chandigarh . . . . .	..	..	190.70	100.00
Delhi	2,718.32	99.94	1.68	0.06
SUB-TOTAL	2,881.66	11.01	865.17	3.30
Gujarat	192.52	2.29	..	..
Madhya Pradesh . . . . .	..	..	..	..
Maharashtra	1,554.40	10.10	100.24	0.65
Goa, Daman & Diu . . . . .	..	..	226.09	100.00
D & N Haveli . . . . .	..	..	8.85	100.00
SUB-TOTAL	1,746.92	5.85	335.18	1.12
Bihar . . . . .	..	..	1,754.85	37.11
Orissa . . . . .	..	..	..	..
West Bengal . . . . .	..	..	978.65	15.74
A & N Islands . . . . .	..	..	11.37	100.00
Sikkim . . . . .	..	..	16.48	100.00
SUB-TOTAL	..	..	2,761.35	20.24
Andhra Pradesh . . . . .	..	..	3.80	0.85
Karnataka . . . . .	..	..	..	..
Kerala	24.00	0.82	..	..
Tamil Nadu	194.58	2.27	341.90	3.98
Pondicherry . . . . .	..	..	145.48	100.00
Lakshadweep . . . . .	..	..	1.78	100.00
SUB-TOTAL	218.58	0.88	492.96	1.98
Assam . . . . .	..	..	..	..
Manipur . . . . .	..	..	19.72	100.00
Meghalaya . . . . .	..	..	..	..
Nagaland . . . . .	..	..	28.50	100.00
Tripura . . . . .	..	..	42.91	100.00
Arunachal Pradesh . . . . .	..	..	15.01	100.00
Mizoram . . . . .	..	..	10.42	100.00
SUB-TOTAL	..	..	116.56	12.46
TOTAL (ALL INDIA)	4,847.16	5.07	4,571.22	4.78

TABLE No. 55—Contd.

State/U.Ts.	PRIVATE SECTOR COMPANIES	
	(GWH)	% to total
Haryana . . . . .	..	..
Himachal Pradesh . . . . .	..	..
Jammu & Kashmir	11.01	1.64
Punjab . . . . .	..	..
Rajasthan	9.73	0.30
Uttar Pradesh	34.01	0.35
Chandigarh . . . . .	..	..
Delhi . . . . .	..	..
SUB-TOTAL	54.75	0.21
Gujarat	2,146.93	25.56
Madhya Pradesh	40.75	0.70
Maharashtra	3,716.27	24.14
Goa, Daman & Diu . . . . .	..	..
D. & N. Haveli . . . . .	..	..
SUB-TOTAL	5,903.95	19.75
Bihar	10.06	0.21
Orissa	4.03	0.15
West Bengal	3,251.95	52.29
A. & N. Islands . . . . .	..	..
Sikkim . . . . .	..	..
SUB-TOTAL	3,266.04	23.94
Andhra Pradesh	60.45	0.86
Karnataka	19.33	0.31
Kerala	11.80	0.40
Tamil Nadu	13.61	0.16
Pondicherry . . . . .	..	..
Lakshadweep . . . . .	..	..
SUB-TOTAL	105.19	0.42
Assam . . . . .	..	..
Manipur . . . . .	..	..
Meghalaya . . . . .	..	..
Nagaland . . . . .	..	..
Tripura . . . . .	..	..
Arunachal Pradesh . . . . .	..	..
Mizoram . . . . .	..	..
SUB-TOTAL . . . . .	..	..
TOTAL (ALL INDIA)	9,329.93	9.76

TABLE No. 56

Energy Sales to Ultimate Consumers (Utilities only)
Categorywise-Regionwise/Statewise during the year 1982-83

(GWH)

Region	State/U. Ts.	Total energy sold	Domestic	Commercial
<i>Northern Region</i>	Haryana	3,326.20	345.87	93.95
	Himachal Pradesh	333.41	83.54	40.44
	Jammu & Kashmir (E)	669.30	150.82	31.16
	Punjab	5,806.82	647.85	166.98
	Rajasthan	3,280.68	295.82	187.05
	Uttar Pradesh	9,855.44	1,295.08	402.13
	Chandigarh	190.70	64.47	35.98
	Delhi	2,720.00	931.11	916.83
	SUB-TOTAL	2,6182.60	3,820.56	1,874.52
<i>Western Region</i>	Gujarat	8,400.92	852.72	339.40
	Madhya Pradesh	5,860.60	450.48	248.67
	Maharashtra	15,392.18	2,199.26	1,129.27
	Goa, Daman & Diu	226.09	48.03	15.91
	D. & N. Haveli	8.85	1.37	0.78
		SUB-TOTAL	29,888.64	3,551.86	1,734.06
<i>Eastern Region</i>	Bihar (S)	4,729.11	168.18	103.91
	Orissa	2,667.01	142.92	79.12
	West Bengal (S)	6,218.48	911.45	569.66
	A & N Islands	11.37	4.09	4.28
	Sikkim	16.48	6.47	1.96
		SUB-TOTAL	13,642.45	1,233.11	758.93
<i>Southern Region</i>	Andhra Pradesh	7,056.08	740.69	251.69
	Karnataka	6,227.33	932.48	161.65
	Kerala	2,929.68	656.36	524.51
	Tamil Nadu	8,579.09	976.73	691.72
	Pondicherry	145.48	21.63	8.13
	Lakshadweep	1.78	1.08	0.52
		SUB-TOTAL	24,939.44	3,328.97	1,368.22
<i>North Eastern Region</i>	Assam	745.81	88.04	82.86
	Manipur	19.72	13.23	0.54
	Meghalaya	73.07	17.20	12.50
	Nagaland	28.50	7.38	5.16
	Tripura	42.91	18.40	7.50
	Arunachal Pradesh	15.01	5.73	1.05
	Mizoram	10.42	7.15	0.91
		SUB-TOTAL	935.44	157.13	110.52
TOTAL (ALL INDIA)		95,588.57	12,091.63	5,846.25

NOTE :—(S) Includes D.V.C.'s sales to ultimate consumers in Bihar and West Bengal.
(E) Estimated.

TABLE No. 36—Contd.

State/UTs.	(GWH)			
	Industrial Power (Low & Medium Voltage)	Industrial Power (High Voltage)	Public lighting	Traction
Haryana	217.48	1,238.69	11.74	..
Himachal Pradesh	156.52	(A)	1.94	..
Jammu & Kashmir (E)	142.79	(A)	17.05	..
Punjab	709.77	1,967.72(B)	14.60	..
Rajasthan	352.52	962.72	22.74	..
Uttar Pradesh	1,363.71	2,719.23	33.39	461.06
Chandigarh	31.80	47.02	3.56	..
Delhi	385.00	436.00	51.06	..
Sub-TOTAL	3,359.59	3,371.38	156.08	461.06
Gujarat	980.58	4,398.94	78.60	128.40
Madhya Pradesh	396.85	3,796.03	47.90	146.79
Maharashtra	1,359.52	6,868.00	174.08	692.48
Goa, Daman & Diu	19.69	99.31	3.18	..
D & N Haveli	1.16	4.95	0.18	..
Sub-TOTAL	2,757.80	15,167.23	303.94	967.67
Bihar	250.86	3,108.48	8.50	398.01
Orissa	127.71	1,995.37	10.20	141.01
West Bengal	466.06	3,458.50	51.91	432.03
A & N Island	2.36	..	0.44	..
Sikkim	3.45	..	0.45	..
Sub-TOTAL	796.44	8,562.35	71.50	971.05
Andhra Pradesh	494.04	3,467.11	71.22	137.82
Karnataka	547.92	4,022.45	83.49	..
Kerala	237.37	1,555.04	46.81	..
Tamilnadu	707.09	3,344.09	91.48	95.00
Pondicherry	10.77	58.77	2.40	..
Lakshadweep	0.10	..	0.08	..
Sub-TOTAL	1,997.29	12,447.46	295.48	232.82
Assam	200.66	268.13	2.80	..
Manipur	1.50	..	0.44	..
Meghalaya	31.37	..	0.25	..
Nagaland	1.23	..	0.48	..
Tripura	8.48	..	1.50	..
Arunachal Pradesh	1.71	..	1.93	..
Mizoram	0.74	..	1.39	..
Sub-TOTAL	245.69	268.13	8.79	..
TOTAL (ALL INDIA)	9,150.81	43,816.55	835.79	2,632.60

NOTE :—(A) Included in industrial (Low & Medium) Voltage.

(B) Includes 614.69 GWH sales to Nangal fertilizers by BBMB.

(E) Estimated.

(AA) Karnataka Electricity Boards Public Water Works consumption included in Industrial (Low & Medium) Voltage.

TABLE No. 56—Contd.

State/UTs.	Agriculture	Public Water work and sewage pumping	Miscellaneous
Haryana	1,327.41	23.07	67.99
Himachal Pradesh	9.18	..	41.79
Jammu & Kashmir	40.35	69.96	211.22
Punjab	2,115.03	6.99(C)	177.88
Rajasthan	11,88.37	170.98	100.48
Uttar Pradesh	3,411.74	169.10	..
Chandigarh	1.17	1.00	5.70
Delhi	(F)	(F)	..
SUB-TOTAL	8,093.25	441.10	665.06
Gujarat	1,387.31	193.40	41.54
Madhya Pradesh	586.65	187.18	0.05
Maharashtra	2,345.09	402.92	221.56
Goa, Daman & Diu	7.24	1.95	30.78
D & N Haveli	0.26	0.15	..
SUB-TOTAL	4,326.55	785.60	293.93
Bihar	618.05	55.13	17.99
Orissa	73.37	41.20	56.11
West Bengal	94.16	176.99	117.72
A & N Islands . . . . .	..	0.08	0.12
Sikkim . . . . .	..	..	4.15
SUB-TOTAL	785.58	273.40	197.09
Andhra Pradesh	1,465.18	102.71	325.62
Karnataka	479.34	(AA)	..
Kerala	107.20	42.39	30.00
Tamil Nadu	2,506.60	92.46	73.92
Pondicherry	37.75	6.03	..
Lakshadweep . . . . .	..	..	..
SUB-TOTAL	4,596.07	243.59	429.54
Assam	8.96	8.61	85.75
Manipur	2.57	1.44	..
Meghalaya	0.21	0.54	11.00
Nagaland . . . . .	..	0.15	14.10
Tripura	3.65	2.60	0.78
Arumachal Pradesh . . . . .	..	0.13	4.46
Mizoram . . . . .	..	0.20	0.03
SUB-TOTAL	15.39	13.67	116.12
TOTAL (ALL INDIA)	17,816.84	1,757.36	1,640.74

NOTE:—(C) It does not include energy supplied by P.S.E.B. to public water works consumers which has been included in Agricultural category.

(F) Included in Industrial (H.V.)

Miscellaneous :—Includes supply to non-traction, non-industrial, M.E.S. Irrigation Board, Project' under construction & free colon consumption etc.

TABLE No- 57

Energy sales by states electricity Boards
Category-Wise—Region-Wise during 1982-83

(GWH)

Region	State/UTs.	Total sold to ultimate consumers	Domestic	Commercial
Northern Region	Haryana	3,326.20	345.87	93.95
	Himachal Pradesh	324.52	80.55	40.44
	Jammu & Kashmir	632.57	155.74	30.88
	Punjab	5,018.79	593.13	139.42
	Rajasthan	3,257.51	295.06	186.63
	Uttar Pradesh	9,821.43	1,293.50	402.08
	SUB-TOTAL	22,381.02	2,763.85	893.40
Western Region	Gujarat	6,061.47	514.04	86.25
	Madhya Pradesh	5,819.85	443.70	247.66
	Maharashtra	10,021.27	1,006.98	361.90
	SUB-TOTAL	21,902.59	1,964.72	695.81
Eastern Region	Bihar (A)	2,964.20	168.18	103.88
	Orissa	2,662.98	140.50	78.60
	West Bengal (A)	1,987.88	183.77	141.66
	SUB-TOTAL	7,615.06	492.45	324.14
Southern Region	Andhra Pradesh	6,991.83	730.26	251.46
	Karnataka	6,208.00	929.00	161.00
	Kerala	2,983.88	649.82	247.54
	Tamil Nadu	8,029.00	900.00	650.00
	SUB-TOTAL	24,122.71	3,209.08	1,209.00
North Eastern Region	Assam	745.81	88.04	82.86
	Meghalaya	73.07	17.02	12.50
	SUB-TOTAL	818.88	105.24	95.36
TOTAL (ALL INDIA)		76,840.26	8,535.34	3,217.71

(A)—Excludes D.V.C.'s sales to ultimate consumers in Bihar and West Bengal.

TABLE No. 37—Contd.

(GWH)			
Name of the State Electricity Board	Industrial (Low & medium voltage)	Industrial (High voltage)	Public Lighting
Haryana	217.48	1,238.69	11.74
Himachal Pradesh	156.52	(B)	1.94
Jammu & Kashmir	141.47	(B)	16.98
Punjab	642.44	1,353.03	12.25
Rajasthan	351.32	949.28	22.63
Uttar Pradesh	1,359.41	2,704.46	33.35
SUB-TOTAL	2,868.64	6,245.46	98.89
Gujarat	587.60	3,247.01	50.37
Madhya Pradesh	393.70	3,796.02	47.32
Maharashtra	767.70	4,745.49	108.27
SUB-TOTAL	1,749.00	11,788.52	205.96
Bihar	250.86	1,531.59	8.49
Orissa	126.71	1,995.37	10.15
West Bengal	146.41	1,008.13	11.51
SUB-TOTAL	523.98	4,535.09	30.15
Andhra Pradesh	485.95	3,467.11	70.08
Karnataka	545.00	4,021.00	83.00
Kerala	222.61	1,549.68	44.86
Tamil Nadu	660.00	2,979.00	84.00
SUB-TOTAL	2,013.56	12,016.89	281.94
Assam	200.66(C)	268.13	2.80
Meghalaya	31.37	..	0.25
SUB-TOTAL	232.03	268.13	3.05
TOTAL (ALL INDIA)	7,387.21	34,853.99	619.99

NOTE :—(B) Included in Industrial (Low & Medium) Voltage.

(C) Includes 141.52 GWH sales to tea gardens.

(F) Commercial Power included under industrial (low & medium) voltage category.

TABLE No. 57—Concl'd.

Name of the S.E.B.	Traction	Agricultural	Public Water Works	Miscellaneous
Haryana . . . . .	..	1,327.41	23.07	67.99
Himachal Pradesh . . . . .	..	9.18	(B)	35.89
Jammu & Kashmir . . . . .	..	39.81	66.00	181.69
Punjab . . . . .	..	2,115.01	(D)	163.51
Rajasthan . . . . .	..	1,181.34	170.77	100.48
Uttar Pradesh	461.06	3,398.47	169.10	..
SUB-TOTAL	461.06	8,071.22	428.94	549.56
Gujarat	128.40	1,372.50	75.30	..
Madhya Pradesh	146.79	557.93	186.73	..
Maharashtra	243.24	2,202.00	365.41	220.28
SUB-TOTAL	518.43	4,132.43	627.44	220.28
Bihar	236.92	610.26	54.02	..
Orissa	141.01	73.33	41.20	56.11
West Bengal	318.33	93.72	27.19	57.16
SUB-TOTAL	696.26	777.31	122.41	113.27
Andhra Pradesh	137.82	1,422.80	102.67	324.68
Karnataka . . . . .	..	469.00	(B)	..
Kerala . . . . .	..	106.98	42.39	30.00
Tamil Nadu	95.00	2,500.00	90.00	71.00
SUB-TOTAL	232.82	4,498.78	235.06	425.68
Assam . . . . .	..	8.96	8.61	85.75
Meghalaya . . . . .	..	0.21	0.54	11.00
SUB-TOTAL . . . . .	..	9.17	9.15	96.75
TOTAL (ALL INDIA)	1,908.57	17,488.91	1,423.00	1,405.54

NOTE :—(D) Included in agriculture category.

Miscellaneous :—Includes supply to non-traction, non-industrial, M.E.S., Irrigation Boards, Projects under construction, free colony consumption etc.

TABLE No. 58

Energy Sales by Private Licensees
 Categorywise-Regionwise/Statewise during 1982-83

(GWH)				
Region	State/U.Ts.	Total Sold to ultimate consumers	Domestic	Commercial
<i>Northern Region</i>	Jammu & Kashmir	11.01	1.08	0.28
	Rajasthan	9.73	0.76	0.42
	Uttar Pradesh	34.01	1.58	0.05
	SUB-TOTAL	54.75	3.42	0.75
<i>Western Region</i>	Gujarat	2,146.93	267.01	250.57
	Madhya Pradesh	40.75	6.78	1.01
	Maharashtra	3,716.27	628.88	209.82
	SUB-TOTAL	5,903.95	902.67	461.40
<i>Eastern Region</i>	Bihar	10.06	..	..
	Orissa	4.03	2.42	0.52
	West Bengal	3,251.95	686.43	426.31
	SUB-TOTAL	3,266.04	688.85	426.83
<i>Southern Region</i>	Andhra Pradesh	60.45	6.63	1.23
	Karnataka	19.33	3.48	0.65
	Kerala	11.80	1.19	0.54
	Tamil Nadu	13.61	4.48	0.28
	SUB-TOTAL	105.19	15.78	2.70
TOTAL (ALL INDIA)		9,329.93	1,610.72	891.68

TABLE No. 58—Contd.

State/UTs	Industrial Power (Low & Medium Voltage)	Industrial Power (High Voltage)	Public Lighting	Traction
Jammu & Kashmir	1.32	..	0.07	..
Rajasthan	1.20	..	0.11	..
Uttar Pradesh	4.30	14.77	0.04	..
SUB-TOTAL	6.82	14.77	0.22	..
Gujarat	367.51	1,078.60	23.42	..
Madhya Pradesh	3.15	0.01	0.58	..
Maharashtra	404.54	1,932.46	36.46	349.00
SUB-TOTAL	775.20	3,011.07	60.46	349.00
Bihar . . . . .	..	1.15	0.01	..
Orissa	1.0	..	0.05	..
West Bengal	256.89	1,618.00	40.00	25.00
SUB-TOTAL	257.89	1,619.15	40.06	25.00
Andhra Pradesh	8.09	..	1.14	..
Karnataka	2.92	1.45	0.49	..
Kerala	9.94	(C)	0.13	..
Tamil Nadu	2.51	0.16	0.80	..
SUB-TOTAL	23.46	1.61	2.56	..
TOTAL (ALL INDIA)	1,063.37	4,646.60	103.30	374.00

(C) Included in industrial low and medium voltage

TABLE No. 58—Contd.

State/U.Ts.	Agricultural	Public Water Works & Sewage Pumping	Miscellaneous
Jammu & Kashmir	0.54	3.96	3.76
Rajasthan	7.03	0.21	..
Uttar Pradesh	13.27	..	..
SUB-TOTAL	20.84	4.17	3.76
Gujarat	9.70	108.66	41.46
Madhya Pradesh	28.72	0.45	0.05
Maharashtra	140.85	13.01	1.25
SUB-TOTAL	179.27	122.12	42.76
Bihar	7.79	1.11	..
Orissa	0.04	..	..
West Bengal	0.44	138.58	60.30
SUB-TOTAL	8.27	139.69	60.30
Andhra Pradesh	42.38	0.04	0.94
Karnataka	10.34	..	..
Kerala . . . . .	..	..	..
Tamil Nadu	5.01	0.37	..
SUB-TOTAL	57.73	0.41	0.94
TOTAL (ALL INDIA)	266.11	266.39	107.76

TABLE No. 59.

Energy Sales to Ultimate Consumers by Electricity Departments, Central Sector, Corporations, Government Undertakings and Municipalities
Categorywise/Regionwise/Statewise during 1982-83

Region	State/U.Ts.	Total Energy sold	Domestic	Commercial
I. MUNICIPALITIES				
<i>Northern Region</i>	Punjab	163.34	54.72	27.56
	D.E.S.U.	2,311.00	850.00	598.00
	N.D.M.C.	407.32	79.43	318.83
<i>Western Region</i>	Gujarat	192.52	71.67	2.61
	Maharashtra	1,554.40	563.40	557.55
<i>Southern Region</i>	Kerala	24.00	5.35	6.43
	TamilNadu	194.08	72.25	41.44
SUB-TOTAL (I)		4,847.16	1,696.82	1,555.42
II. GOVT. DEPTTS./CENTRAL SECTOR UNDERTAKINGS/ CORPORATION				
<i>Northern Region</i>	Punjab(BBMB)	624.69	..	..
	H.P.(Bairasiul)	8.89	2.99	..
	Rajasthan (RAPP)	13.44	..	..
	J & K(Safal)	25.77	..	..
	Chandigarh	190.70	64.47	35.98
	Central Sector(Badarpur T.P.S.)	1.68	1.68	..
<i>Western Region</i>	Maharashtra (Chola)	100.24	..	..
	D & N Haveli	8.85	1.37	0.78
	Goa, Daman & Diu	226.09	48.03	15.91
<i>Eastern Region</i>	D.V.C.(in Bihar)	1,754.85	..	0.03
	D.V.C.(in W.B.)	717.50	..	0.04
	Sikkim	16.48	6.47	1.96
	West Bengal(D.P.L.)	261.15	41.25	1.65
	A & N Islands	11.37	.09	4.28
<i>Southern Region</i>	Andhra Pradesh	3.80	3.80	..
	(Tungabadra Dam & Hampi)			
	Lakshadweep	1.78	1.08	0.52
	Pondicherry	145.48	21.63	8.13
Central Sector(Neyveli)	341.90	..	..
<i>North Eastern Region</i>	Manipur	19.72	13.23	0.54
	Nagaland	28.50	7.38	5.16
	Tripura	42.91	18.40	7.50
	Arunachal Pradesh	15.01	5.73	1.05
	Mizoram	10.42	7.15	0.91
SUB-TOTAL II)		4,571.22	248.75	84.44
TOTAL (I+II)		9,418.38	1,945.57	1,636.86

TABLE No. 59—Contd.

Ownership	State/U.Ts.	Industrial Power (low & medium Voltage)	Industrial Power (High Voltage)	Public lighting	Traction
I. MUNICIPALITIES					
Punjab		67.33	(D)	2.35	..
D.E.S.U.		385.00	436.00	42.00	..
N.D.M.C.		9.06	..
Gujarat		25.47	73.33	4.81	..
Maharashtra		187.28	190.05	29.35	..
Kerala		4.82	5.36	1.82	..
TamilNadu		44.58	23.03	6.68	..
SUB-TOTAL (I)		714.48	727.77	96.07	..
II. GOVT. DEPTTS./UNDERTAKINGS					
Punjab (BBMB)		..	614.69	..	..
H. P. (Bairasil)	
Rajasthan (RAPP)		..	13.44	..	..
J & K (Salal)	
Chandigarh		31.80	47.02	3.56	..
Central Sector (Badarpur T.P.S.)	
Maharashtra (Chola)		100.24
D & N Haveli		1.16	4.95	0.18	..
Goa, Daman & Diu		19.69	99.31	3.18	..
D.V.C. (in Bihar)		..	1,575.74*	..	161.09
D.V.C. (in West Bengal)		..	628.76	..	88.70
Sikkim		3.45	..	0.45	..
D.P.E. (W.B.)		2.76	203.61	0.40	..
A & N Islands		2.36	..	0.44	..
Andhra Pradesh (T.B. Dam & Hampi)	
Lakshadweep		0.10	..	0.08	..
Pondicherry		10.77	58.77	2.40	..
Central Sector (Neyveli)		..	341.90	..	..
Manipur		1.50	..	0.44	..
Nagaland		1.23	..	0.48	..
Tripura		8.48	..	1.50	..
Arunachal Pradesh		1.71	..	1.93	..
Mizoram		0.74	..	1.39	..
TOTAL (II)		85.75	3,588.19	16.43	350.03
TOTAL (I + II)		800.23	4,315.96	112.50	350.03

*Includes 23.38 GWH supply to F.C.I. Sindri through interconnected system.

TABLE No. 59—Contd.

State/U.Ts.	Agricultural	Public Water Works and Sewage pumping	Miscellaneous
(GWH)			
I. MUNICIPALITIES			
Punjab	0.02	6.99	4.37
D.E.S.U. . . . .	..	..	..
N.D.M.C. . . . .	..	..	..
Gujarat	5.11	9.44	0.08
Maharashtra	2.24	24.50	0.03
Kerala	0.22	..	..
Tamil Nadu	1.59	2.09	2.92
SUB-TOTAL (I)	9.18	43.02	7.40
II. GOVT. DEPT/UNDERTAKING			
B.B.M.B. in Punjab . . . . .	..	..	10.00
H.P. (Bairasiul) . . . . .	..	..	5.90
Rajasthan (RAPP) . . . . .	..	..	..
J & K (Salal H.E.P.) . . . . .	..	..	25.77
Chandigarh	1.17	1.00	5.70
Central Sector (Badarpur T.P.S.) . . . . .	..	..	..
Maharashtra (Chola) . . . . .	..	..	..
D & N Haveli	0.26	0.15	..
Goa, Daman & Diu	7.24	1.95	30.78
D.V.C. (in Bihar) . . . . .	..	..	17.99
D.V.C. (in West Bengal) . . . . .	..	..	..
Sikkim . . . . .	..	..	4.15
West Bengal (D.P.L.) . . . . .	..	11.22	0.26
A & N Islands . . . . .	..	0.08	0.12
Andhra Pradesh (T.B. Dam & Hampi) . . . . .	..	..	..
Lakshadweep . . . . .	..	..	..
Pondicherry	37.75	6.03	..
Central Sector (Neyveli) . . . . .	..	..	..
Manipur	2.57	1.44	..
Nagaland . . . . .	..	0.15	14.10
Tripura	3.65	2.60	0.78
Arunachal Pradesh . . . . .	..	0.13	4.46
Mizoram . . . . .	..	0.20	0.03
SUB-TOTAL (II)	52.64	24.95	120.04
TOTAL (I+II)	61.82	67.97	127.44

(A) Included in Domestic category

(D) Included in Industrial high voltage.

(E) Estimated.

(F) Included in Agricultural.

TABLE No. 60

Pattern of Energy Sales (Category-wise) Regionwise/Statewise during 1982-83

Region	State/U.Ts.	Total sales (GWH)	Percentage to total sales	
			Domestic	Commercial
<i>Northern Region</i>	Haryana	3,326.20	10.39	2.82
	Himachal Pradesh	333.41	25.06	12.13
	Jammu & Kashmir	669.35	23.43	4.65
	Punjab	5,806.82	11.15	2.87
	Rajasthan	3,280.68	9.02	5.70
	Uttar Pradesh	9,855.44	13.14	4.08
	Chandigarh	190.70	33.81	18.87
	Delhi	2,720.00	34.23	33.71
	SUB-TOTAL	26,182.60	14.59	7.16
<i>Western Region</i>	Gujarat	8,400.92	10.15	4.04
	Madhya Pradesh	5,860.60	7.69	4.24
	Maharashtra	15,392.18	14.29	7.34
	Goa, Daman & Diu	226.09	21.24	7.04
	D & N Haveli	8.85	15.48	8.81
	SUB-TOTAL	29,888.64	11.88	5.80
<i>Eastern Region</i>	Bihar	4,729.11	3.56	2.19
	Orissa	2,667.01	5.36	2.97
	West Bengal	6,218.48	14.66	9.16
	A & N Islands	11.37	53.97	37.64
	Sikkim	16.48	39.26	11.89
	SUB-TOTAL	13,642.45	9.04	5.56
<i>Southern Region</i>	Andhra Pradesh	7,056.08	10.49	3.57
	Karnataka	6,227.33	14.97	2.59
	Kerala	2,929.68	22.40	8.69
	Tamil Nadu	8,579.09	11.38	8.06
	Pondicherry	145.48	14.87	5.59
	Lakshadweep	1.78	60.67	29.21
	SUB-TOTAL	24,939.44	13.35	5.49
<i>North Eastern Region</i>	Assam	745.81	11.80	11.11
	Manipur	19.72	67.09	2.74
	Meghalaya	73.07	23.54	17.11
	Nagaland	28.50	25.89	18.11
	Tripura	42.91	42.88	17.48
	Arunachal Pradesh	15.01	38.17	6.99
	Mizoram	10.42	68.62	8.73
	SUB-TOTAL	935.44	16.79	11.81
	TOTAL (ALL INDIA)	95,588.57	12.65	6.12

For foot notes see Table No. 56

TABLE No. 60—Contd.

State/U.Ts.	Percentage to total sales		
	Industrial Power	Public Lighting	Traction
Haryana	43.79	0.35	..
Himachal Pradesh	46.94	0.58	..
Jammu & Kashmir	21.33	2.55	..
Punjab	46.12	0.25	..
Rajasthan	40.09	0.69	..
Uttar Pradesh	41.42	0.34	4.68
Chandigarh	41.33	1.87	..
Delhi	30.18	1.88	..
SUB-TOTAL	40.99	0.59	1.76
Gujarat	64.04	0.93	1.53
Madhya Pradesh	71.54	0.82	2.51
Maharashtra	53.45	1.13	4.49
Goa, Daman & Diu	43.92	1.41	..
D & N Haveli	69.04	2.03	..
SUB-TOTAL	59.97	1.02	3.24
Bihar	71.03	0.18	8.42
Orissa	79.60	0.38	5.29
West Bengal	62.15	0.83	6.95
A & N Islands	20.76	3.87	..
Sikkim	20.93	2.73	..
SUB-TOTAL	68.56	0.52	7.12
Andhra Pradesh	56.14	0.35	1.95
Karnataka	73.41	1.34	..
Kerala	61.18	1.59	..
Tamil Nadu	47.22	1.07	1.11
Pondicherry	47.80	1.65	..
Lakshadweep	5.63	4.49	..
SUB-TOTAL	57.92	0.99	0.93
Assam	62.87	0.37	..
Manipur	7.61	2.23	..
Meghalaya	42.93	0.34	..
Nagaland	4.32	1.68	..
Tripura	19.76	3.49	..
Arunachal Pradesh	11.39	12.86	..
Mizoram	7.10	13.34	..
SUB-TOTAL	54.94	0.94	..
TOTAL (ALL INDIA)	55.41	0.83	2.75

TABLE No. 60—Contd.

State/U.Ts.	Percentage to total sales		
	Agriculture	Public water works	Miscellaneous
Haryana	39.91	0.69	2.05
Himachal Pradesh	2.75	..	12.54
Jammu & Kashmir	6.03	10.45	31.56
Punjab	36.42	0.12	3.07
Rajasthan	36.22	5.21	3.07
Uttar Pradesh	34.62	1.72	..
Chandigarh	0.61	0.52	2.99
Delhi . . . . .	..	..	..
SUB-TOTAL	30.91	1.68	2.32
Gujarat	16.51	2.30	0.50
Madhya Pradesh	10.01	3.19	..
Maharashtra	15.23	2.62	1.44
Goa, Daman & Diu	3.20	0.86	13.61
D & N Haveli	2.94	..	..
SUB-TOTAL	14.47	2.63	0.99
Bihar	13.07	1.16	0.39
Orissa	2.75	1.54	2.11
West Bengal	1.51	2.85	1.89
A & N Islands . . . . .	..	0.70	1.06
Sikkim . . . . .	..	..	25.19
SUB-TOTAL	5.76	2.00	1.44
Andhra Pradesh	20.76	1.46	4.62
Karnataka	7.69	..	..
Kerala	3.66	1.45	1.03
Tamil Nadu	29.22	1.08	0.86
Pondicherry	25.95	4.14	..
Lakshadweep . . . . .	..	..	..
SUB-TOTAL	18.43	0.98	1.72
Assam	1.20	1.15	11.50
Manipur	13.03	7.30	..
Meghalaya	0.29	0.74	15.05
Nagaland . . . . .	..	0.53	49.47
Tripura	8.51	6.06	1.82
Arunachal Pradesh . . . . .	..	0.87	29.72
Mizoram . . . . .	..	1.92	0.29
SUB-TOTAL	1.64	1.46	12.42
TOTAL (ALL INDIA)	18.64	1.84	1.72

TABLE NO. 61

Annual per capita consumption of electricity (utilities, non-utilities)

Categorywise-Regionwise/Statewise during 1982-83

(KWH)

Region	State/U.Ts.	UTILITIES		
		Population* (Million)	Domestic	Commercial
Northern Region	Haryana	13.42	25.78	7.00
	Himachal Pradesh	4.42	18.90	9.15
	Jammu & Kashmir	6.16	25.46	5.06
	Punjab	17.42	37.19	9.59
	Rajasthan	36.06	8.20	5.19
	Uttar Pradesh	115.63	11.20	3.48
	Chandigarh	0.50	128.94	71.96
	Delhi	6.66	139.81	137.66
	SUB-TOTAL	200.27	19.08	9.35
Western Region	Gujarat	35.34	24.13	9.60
	Madhya Pradesh	53.76	8.38	4.63
	Maharashtra	64.67	34.01	19.46
	Goa, Daman & Diu	1.10	43.66	14.46
	D & N Haveli	0.11	12.45	7.09
		SUB-TOTAL	154.98	22.92	11.19
Eastern Region	Bihar	72.57	2.32	1.43
	Orissa	26.91	5.31	2.94
	West Bengal	56.35	16.17	10.11
	A & N Islands	0.20	20.45	21.40
	Sikkim	0.34	19.03	5.77
		SUB-TOTAL	156.37	7.89	4.85
Southern Region	Andhra Pradesh	55.36	13.38	4.55
	Karnataka	38.65	24.13	4.18
	Kerala	26.04	25.21	9.77
	Tamil Nadu	49.42	19.76	14.00
	Pondicherry	0.63	34.34	12.90
	Lakshadweep	0.04	27.00	13.00
		SUB-TOTAL	170.14	19.57	8.04
North Eastern Region	Assam	20.94	4.20	3.96
	Manipur	1.48	8.94	0.36
	Meghalaya	1.40	12.28	8.93
	Nagaland	0.84	8.79	6.14
	Tripura	2.17	8.48	3.46
	Arunachal Pradesh	0.66	8.68	1.59
	Mizoram	0.54	13.24	1.69
		SUB-TOTAL	28.03	5.61	3.94
TOTAL (ALL INDIA)		709.79	17.03	8.24

*— Figures & population as on 1st Oct., 1982 (mid-Financial year) are based on mid-year estimates (1971 Census).

@—Total may not tally due to rounding off.

TABLE No. 61—Contd.

(IN KWH)

State/U.Ts.	UTILITIES		
	Industrial Public water works, Traction & Miscellaneous	Public Lighting	Agriculture
Haryana	115.30	0.87	98.91
Himachal Pradesh	44.86	0.44	2.08
Jammu & Kashmir	68.83	2.77	6.55
Punjab	164.31	0.84	121.41
Rajasthan	44.00	0.63	32.96
Uttar Pradesh	40.76	0.29	29.50
Chandigarh	171.04	7.12	2.34
Delhi	123.27	7.67	..
SUB-TOTAL	61.11	0.78	40.41
Gujarat	162.50	2.22	39.26
Madhya Pradesh	84.20	0.89	10.91
Maharashtra	147.59	2.69	36.26
Goa, Daman & Diu	137.95	2.89	6.58
D & N Haveli	56.91	1.64	2.36
SUB-TOTAL	128.86	1.96	27.92
Bihar	52.78	0.12	8.52
Orissa	87.75	0.38	2.73
West Bengal	81.48	0.92	1.67
A & N Islands	12.80	2.20	..
Sikkim	22.35	1.32	..
SUB-TOTAL	69.03	0.46	5.02
Andhra Pradesh	81.77	1.29	26.47
Karnataka	118.25	2.16	12.40
Kerala	71.61	1.80	4.12
Tamil Nadu	87.26	1.85	50.72
Pondicherry	119.95	3.81	59.92
Lakshadweep	2.50	2.00	..
SUB-TOTAL	90.22	1.74	27.01
Assam	26.90	0.13	0.43
Manipur	1.99	0.29	1.74
Meghalaya	30.65	0.18	0.15
Nagaland	18.43	0.57	..
Tripura	5.46	0.69	1.68
Arunachal Pradesh	9.55	2.92	..
Mizoram	1.80	2.57	..
SUB-TOTAL	22.96	0.31	0.55
TOTAL (ALL INDIA)	83.12	1.18	25.10

TABLE No. 61—Contd.

(IN KWH)

State/U.Ts.	Total Utilities	KWH from self-generation of non-utilities	Total (Utilities - non-utilities)
Haryana	247.86	10.03	257.89
Himachal Pradesh	75.43	0.02	75.45
Jammu & Kashmir	108.66	0.02	108.68
Punjab	333.34	1.92	335.26
Rajasthan	90.98	12.98	103.96
Uttar Pradesh	85.23	17.17	102.40
Chandigarh	381.40	1.94	383.34
Delhi	408.41	25.47	433.88
SUB-TOTAL	130.73	13.94	144.67
Gujarat	237.71	17.36	255.07
Madhya Pradesh	109.01	11.01	120.02
Maharashtra	238.01	10.00	248.01
Goa, Daman & Diu	205.54	41.20	246.74
D & N Haveli	80.45	..	80.45
SUB-TOTAL	192.85	12.24	205.09
Bihar	65.17	21.66	86.83
Orissa	99.11	18.44	117.55
West Bengal	110.35	11.37	121.72
A & N Islands	56.85	..	56.85
Sikkim	48.47	..	48.47
SUB-TOTAL	87.25	17.32	104.57
Andhra Pradesh	127.46	6.53	133.99
Karnataka	161.12	6.92	168.04
Kerala	112.51	3.68	115.89
Tamil Nadu	173.59	11.23	184.82
Pondichery	230.92	13.38	244.30
Lakshadweep	44.50	..	44.50
SUB-TOTAL	146.58	7.52	154.10
Assam	35.62	4.96	40.58
Manipur	13.32	..	13.32
Meghalaya	52.19	..	52.19
Nagaland	33.93	4.36	38.29
Tripura	19.77	..	19.77
Arunachal Pradesh	22.74	..	22.74
Mizoram	19.30	..	19.30
SUB-TOTAL	33.37	3.84	37.21
TOTAL (ALL INDIA)	134.67	12.38	147.05

TABLE No. 62

Energy Consumption Per Square Kilometer And Per Thousand Population (Utilities Only)

Regionwise/statewise during 1982-83

Region	State/U.Ts.	Population (Million)	Area in 1000 sq. Kilometer §	Total Energy Consumption (GWH)
Northern Region	Haryana	13.42	44.22	3,326.20
	Himachal Pradesh	4.42	55.67	333.41
	Jammu & Kashmir	6.16	222.24	669.35
	Punjab	17.42	50.36	5,806.82
	Rajasthan	36.06	342.21	3,280.68
	Uttar Pradesh	115.63	294.41	9,855.44
	Chandigarh	0.50	0.11	190.70
	Delhi	6.66	1.48	2720.00
	SUB-TOTAL	200.27	1,010.70	26,182.60
Western Region	Gujarat	35.34	195.98	8,400.92
	Madhya Pradesh	53.76	442.84	5,860.60
	Maharashtra	64.67	307.76	15,392.18
	Goa, Daman & Diu	1.10	3.81	226.09
	D. & N. Haveli	0.11	0.49	8.85
	SUB-TOTAL	154.98	950.88	29,888.64
Eastern Region	Bihar	72.57	173.88	4,729.11
	Orissa	26.91	155.78	2,667.01
	West Bengal	56.35	87.86	6,218.48
	A & N Islands	0.20	8.29	11.37
	Sikkim	0.34	7.30	16.48
	SUB-TOTAL	156.37	433.11	13,642.45
Southern Region	Andhra Pradesh	55.36	276.81	7,056.08
	Karnataka	38.65	191.77	6,227.33
	Kerala	26.04	38.86	2,929.68
	Tamil Nadu	49.42	130.07	8,579.09
	Pondicherry	0.63	0.48	145.98
	Lakshadweep	0.04	0.03	1.78
	SUB-TOTAL	170.14	638.02	24,939.44
North Eastern Region	Assam	20.94	77.52	745.81
	Manipur	1.48	22.36	19.72
	Meghalaya	1.40	22.49	73.07
	Nagaland	0.84	16.53	28.50
	Tripura	2.17	10.48	42.91
	Arunachal Pradesh	0.66	83.58	15.01
	Mizoram	0.54	21.09	10.42
		SUB-TOTAL	28.03	255.05	935.44
	TOTAL (ALL INDIA)	709.79(B)	3,287.78@	95,588.57

NOTE:—§ —Source for area figures is statistical abstract India 1977 published by Central Statistical Organisation.
 £ —Includes consumption by ultimate consumers of D.V.C. in Valley area of Bihar and West Bengal respectively.
 @ —Total may not tally due to rounding off.
 (B) —The aggregate over the states/uts, will not exactly tally with India which has been estimated direct.
 Source :—Office of the Registrar General of India.

TABLE No. 62—Contd.

State/U.Ts.	Energy consumed per thousand of population (Kwh)	Energy consumed per square Kilometer (Kwh)
Haryana	2,47,860	7,5219
Himachal Pradesh	75,432	5,989
Jammu & Kashmir	1,08,660	3,012
Punjab	3,33,342	1,15,306
Rajasthan	90,982	9,587
Uttar Pradesh	85,232	33,475
Chandigarh	3,81,400	17,33,636
Delhi	4,08,408	18,37,838
SUB-TOTAL	130,736	25,905
Gujarat	2,37,717	42,866
Madhya Pradesh	10,901	13,234
Maharashtra	2,38,011	50,014
Goa, Daman & Diu	2,05,536	59,341
D & N Haveli	80,454	18,061
SUB-TOTAL	1,92,854	31,433
Bihar	65,166	27,198
Orissa	9,91,085	17,120
West Bengal	1,10,354	70,777
A & N Islands	56,850	1,371
Sikkim	48,470	2,257
SUB-TOTAL	87,244	31,499
Andhra Pradesh	1,27,457	25,491
Karnataka	1,61,121	32,473
Kerala	1,12,506	75,391
Tamil Nadu	1,73,595	65,957
Pondicherry	2,30,921	3,03,083
Lakshadweep	44,500	59,333
SUB-TOTAL	1,46,581	39,089
Assam	35,616	9,498
Manipur	13,324	1,882
Meghalaya	52,192	3,249
Nagaland	33,928	1,724
Tripura	19,774	4,094
Arunachal Pradesh	22,742	180
Mizoram	19,296	494
SUB-TOTAL	33,372	3,668
TOTAL (ALL INDIA)	1,34,671	29,074

TABLE No.-63

Electrical Accidents During 1982-83

State/Uts./Central Undertakings	Total		For houses & Sub-Stations				
	Fatal	Non-Fatal	Electric Supply Undertaking		Industrial Undertaking		
			Fatal	Non-Fatal	Fatal	Non-Fatal	
Andhra Pradesh	223+	53*	118	2	9	..	..
Assam	53+	31*	47	3+	5*	3	..
Bihar	22+	..	31	3+	..	4	1
Gujarat	174+	192*	217	14+	2*	24	..
Haryana	73+	344*	107	19+	..	32	..
Himachal Pradesh	18+	13*	43	..	..	..	..
Jammu & Kashmir . . . . .	..	..	Data Not available	..	..	..	..
Kanataka	135+	144*	323	Details not available	..	..	..
Kerala	143+	29*	156	1	5	1	1
Madhya Pradesh	427+	160*	253	8+	2*	29	..
Maharashtra	425+	167*	403+4*	8+	54*	16+	2*
Manipur	1+	4*	2	..	..	1	..
Meghalaya	6+	6*	10+1*	2	..	..	..
Nagaland . . . . .	..	..	..	Data not available	..	..	..
Orissa	33+	9*	28	3	3	..	2
Punjab	321+	250*	104	3	..	18	..
Rajasthan	53+	20*	111	8	..	22	..
Sikkim	1	..	5	..	..	..	..
Tamil Nadu	156+	28*	80	1	1	1	..
Tripura	194+	..	371+147*	3	..	14	17
West Bengal	69+	16*	114	2	..	14	..
Mines	8	..	6	..	..	..	..
Central Govt. Installations	46	..	89	Details not available	..	..	..
Railways	29	..	64	..	..	2	9
UNION TERRITORIES							
A & N Islands . . . . .	..	2*	3	..	..	..	..
Arunachal Pradesh	1	..	2	..	..	..	..
Chandigarh . . . . .	..	1*	2	..	..	..	..
D & N Haveli	1	..	..	..	..	..	..
Delhi	41+	4*	50	1	..	10	2
Goa Daman & Diu	7+	27*	29	Details not available	..	..	..
Lakshadweep	Nil	..	Nil	Nil	Nil	Nil	Nil
Mizoram	1	..	3	1	..	..	..
Pondicherry	3+	1*	..	Details not available	..	..	..
TOTAL (ALL INDA)	C2,484+1,501	2,771+152*	81+ 62*	193+ 2*	24+ 24*	51	

(C) Categories total may not tally with aggregate total as details of accidents of some states/Uts. are not available.

*Accidents involving animals.

ABLE No. 63—(Contd.)

State/Uts./Central Undertaking	TRANSMISSION LINES				
	Electric Supply Undertaking			Industrial Undertaking	
	Fatal	Non-Fatal		Fatal	Non-Fatal
Andhra Pradesh	14+	1*	11	..	..
Assam	21+	5*	15	..	..
Bihar	4		3	..	..
Gujarat	19+	15*	11	..	..
Haryana	11		4	..	..
Himachal Pradesh . . . . .	..		..	..	..
Jammu & Kashmir	— Data not available —				
Karnataka	— Details not available —				
Kerala	22		20	..	..
Madhya Pradesh	39+	20	85	..	..
Maharashtra	76+	41*	98+	1	3
Manipur		1*	1	..	..
Meghalaya	3+	6*	2+	1*	..
Nagaland	— Data not available —				
Orissa	4+	2*	9	..	..
Punjab	4+	1*	3	..	..
Rajasthan	17+	6*	19	..	..
Sikkim	1		1	..	..
Tamil Nadu . . . . .	..		1	..	1
Tripura	— Data not available —				
Uttar Pradesh . . . . .			..	99	163+
West Bengal	13+	4*	10	..	33*
Mines . . . . .	..		..	4	3
Central Government Installation	— Data not available —				
Railways	2		3	1	1
UNION TERRITORIES					
A & N Islands . . . . .	..		..	..	..
Arunachal Pradesh . . . . .	..		1	..	..
Chandigarh . . . . .	..		..	..	..
D & N Havile	1		..	..	..
Delhi	2		4	..	..
Goa, Daman & Diu	— Details not available —				
Mizoram . . . . .	..		..	..	..
Pondicherry	— Details not available —				
TOTAL (ALL INDIA)	253+102*		301+2*	107	180+ 33*

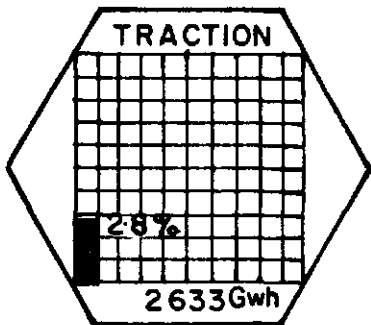
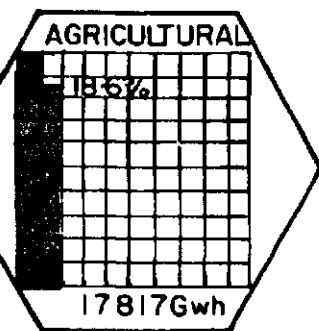
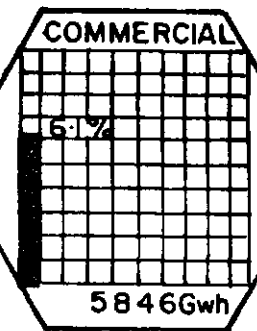
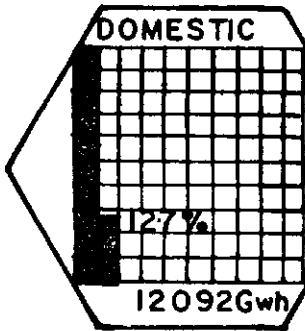
*Accidents involving animals.

TABLE No. 63—Contd.

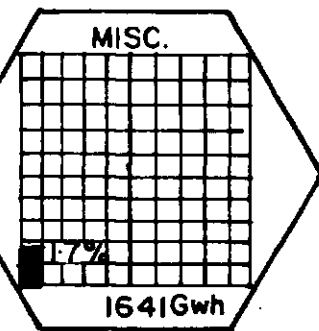
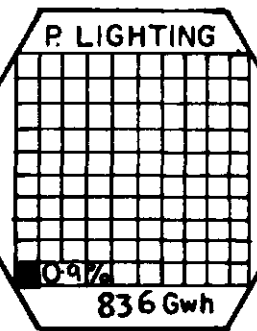
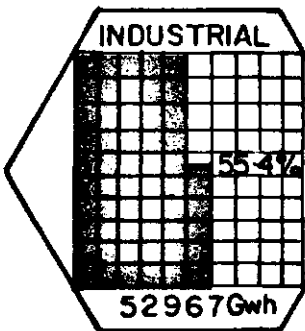
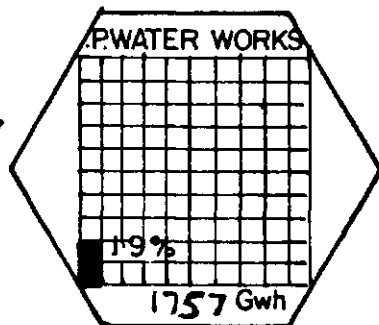
State/Uts./Central Undertaking	DISTRIBUTION LINES			
	Electric Supply Undertaking		Industrial Undertaking	
	Fatal	Non-Fatal	Fatal	Non-Fatal
Andhra Pradesh	201+52*	97	6	1
Assam	29+21*	29	..	..
Bihar	9	7	5	14
Gujarat	139+174*	155	2+1*	22
Haryana	35+344*	71	8	..
Himachal Pradesh	18+13*	43	..	..
Jammu & Kashmir		—Data not available—		
Karnataka		—Details not available—		
Kerala	106+28*	120	13	10
Madhya Pradesh	193+136*	112	7+2*	27
Maharashtra	265+48*	233+1*	68	36
Manipur	3*	..	1	..
Meghalaya	2	6	..	..
Nagaland		—Data not available—		
Orissa	16+7*	8	10	6
Punjab	305+245*	80	9+4*	1
Rajasthan	26+14*	67	2	3
Sikkim . . . . .	..	4	..	..
Tamil Nadu	152+28*	75	2	2
Tripura		—Data not available—		
Uttar Pradesh	5	19	73	172+114*
West Bengal	44+12*	67	10	23
Mines . . . . .	..	..	4	1
Central Govt. Installations		—Details not available—		
Railways	8	22	16	29
UNION TERRITORIES				
A & N Islands	2*	3	..	..
Arunachal Pradesh	1	1	..	..
Chandigarh	1*	2	..	..
D & N Haveli . . . . .	..	..	..	..
Delhi	13+4*	33	25	1
Goa, Daman & Diu		—Details not available—		
Lakshadweep	Nil	Nil	Nil	Nil
Mizoram . . . . .	..	3	..	..
Pondicherry		—Details not available—		
TOTAL (ALL INDIA)	1,567+	1,133*, 1,257+	1*	261+7*
				348+114*

*Accidents involving animals.

ENERGY SALES DURING 1982-83(Utilities)

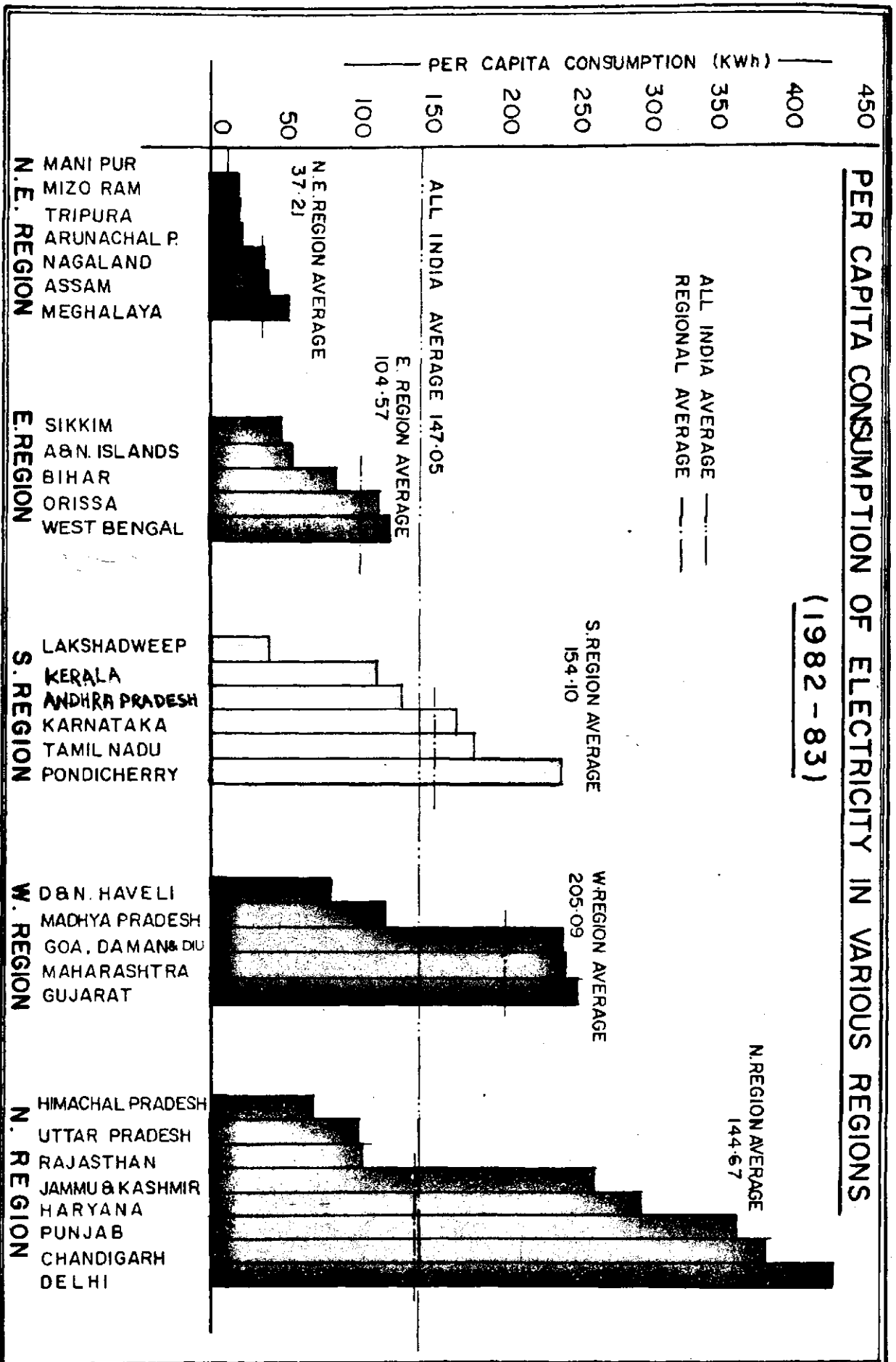


TOTAL ENERGY SALES
95589 GWh.



PER CAPITA CONSUMPTION OF ELECTRICITY IN VARIOUS REGIONS

(1982 - 83)



SECTION IX
CONSUMERS & CONNECTED LOAD

CONSUMERS AND CONNECTED LOAD

During the year under review 2.538 Million additional electricity connections were given to different categories of consumers bringing the total number of consumers to 37.96 Million as on 31st March, 1983 recording an increase of 7.17% over the previous year. The corresponding connected load of all types of consumers rose to 69709.40 MW as compared to 65610.66 MW as on 31-3-82 registering an increase of 6.257% over the previous year.

Domestic category continued to have the maximum number of consumers benefiting from Electricity followed by commercial and agricultural categories. However, the industrial consumers had the maximum connected load of 27500 MW followed by agricultural and domestic sectors having connected load of 18712 MW and 15633 MW respectively. Tables in this section show the details of consumers and connected load of different categories in various States/Union Territories.

TABLE NO. 64
CLASSIFICATION OF CONSUMERS AND CONNECTED LOAD
UTILITIES ONLY—REGIONWISE/STATEWISE AS ON 31-3-1983

Region	State/U. Ts.	TOTAL		DOMESTIC	
		Connected load (KW)	Consumers	Connected load (KW)	Consumers
North Region	Haryana	27,43,027	14,38,398	3,81,142	9,68,614
	Himachal Pradesh	4,85,082	5,31,792	2,44,664	4,65,684
	Jammu & Kashmir (R)	2,31,790	3,51,197	72,329	2,92,733
	Punjab	39,92,509	25,22,605	9,71,380	18,22,726
	Rajasthan	34,14,829	16,05,547	5,79,185	10,15,871
	Uttar Pradesh	59,24,951	23,45,063	10,29,363	17,40,667
	Chandigarh	2,75,639	91,352	1,41,623	78,200
	Delhi	15,01,240	12,14,447	6,08,969	9,67,142
	SUB-TOTAL	1,85,69,067	1,01,00,401	40,28,655	73,51,637
Western Region	Gujarat	63,73,499	37,17,827	14,98,115	28,57,874
	Madhya Pradesh	41,53,658	21,85,854	6,93,970	13,14,733
	Maharashtra	1,17,71,931	58,86,119	28,21,537	41,09,034
	Goa, Daman & Diu	89,547	1,62,371	44,105	1,35,761
	D & N Haveli (R)	3,465	3,853	1,205	3,410
		SUB-TOTAL	2,23,92,100	1,19,56,024	50,58,932	84,20,212
Southern Region	Andhra Pradesh	55,24,927	29,65,535	9,05,998	19,70,837
	Karnataka	41,32,131	27,62,487	11,86,253	20,27,426
	Kerala	25,62,049	19,82,725	10,17,327	14,82,270
	Tamil Nadu	80,19,483	46,19,511	14,86,153	27,33,275
	Pondicherry	1,35,018	67,541	29,127	45,554
	Lakshadweep	4,247	6,145	3,129	5,410
		SUB-TOTAL	2,03,77,855	1,24,03,944	46,27,987	82,64,772
Eastern Region	Bihar	20,32,407	9,85,417	3,03,498	5,19,001
	Orissa	13,38,736	6,19,483	3,46,624	4,63,337
	West Bengal	35,39,027	14,21,802	9,34,560	9,74,599
	D.V.C. (R)	5,20,030	40	..	..
	A & N Islands	10,674	18,725	6,749	13,498
	Sikkim	8,917	8,500	7,800	6,500
		SUB-TOTAL	74,49,791	30,53,967	15,99,231	19,76,935
North|Eastern Region	Assam	7,53,889	2,55,994	2,49,833	1,84,377
	Manipur	14,082	31,730	6,250	31,068
	Meghalaya	52,634	43,893	22,056	38,163
	Nagaland(R)	29,900	42,065	14,598	34,099
	Tripura (E)	56,050	40,678	14,650	29,313
	Arunachal Pradesh(R)	5,470	18,094	3,600	15,864
	Mizoram	8,564	11,794	7,165	11,230
	SUB-TOTAL	9,20,589	4,44,248	3,18,152	3,44,114
	TOTAL (ALL INDIA)	6,97,09,402	3,79,58,584	1,56,32,957	2,63,58,270

(R) Data repeated due to non-availability of information.

TABLE NO. 64—Contd.

State/U.Ts.	COMMERCIAL		INDUSTRIAL (LV & MV)	
	Connected load (KW)	Consumers	Connected load (KW)	Consumers
Haryana	98,210	1,62,181	10,38,915	49,429
Himachal Pradesh	67,242	55,727	1,24,188	7,970
Jammu & Kashmir	21,867	46,525	85,163	8,080(A)
Punjab	2,55,035	2,94,852	7,25,691	69,149
Rajasthan	2,14,538	2,74,798	6,22,899	59,000
Uttar Pradesh	2,47,240	89,814	14,92,786	1,19,563
Chandigarh	64,005	10,479	24,899	1,823
Delhi	4,02,910	1,97,156	3,16,305	48,492
SUB-TOTAL	13,71,047	11,31,532	44,30,846	3,63,506
Gujarat	3,51,823	4,38,551	13,07,576	1,39,684
Madhya Pradesh	3,33,967	3,71,858	5,99,035	64,622
Maharashtra	8,93,189	7,67,158	17,37,992	1,74,211
Goa, Daman & Diu	6,228	19,860	24,247	3,633
D & N Haveli	40	78	980	76
SUB-TOTAL	15,85,247	15,97,505	36,69,830	3,82,226
Bihar	1,64,474	2,08,256	5,23,105	66,232
Orissa	1,00,655	1,15,777	2,62,078	16,970
West Bengal	55,321	3,37,701	4,98,622	79,723
D.V.C. (R)	30	3	..	..
A & N Islands	2,911	4,852	780	156
Sikkim	(A)	2,000	1,050	50
SUB-TOTAL	8,21,286	6,68,589	12,85,635	1,63,081
Andhra Pradesh	2,37,512	3,33,446	7,00,214	63,548
Karnataka	94,656	2,41,448	6,67,954	1,14,977
Kerala	2,61,389	3,49,088	4,58,496	40,308
Tamil Nadu	4,66,993	6,39,413	14,15,385	1,89,965
Pondicherry	5,896	12,390	28,605	1,907
Lakshadweep	644	663	390	48
SUB-TOTAL	10,67,090	15,76,448	32,71,044	4,10,753
Assam	97,653	59,744	2,16,964(D)	4,901(D)
Manipur	160	11	3,575	636
Meghalaya	7,016	5,215	15,606	294
Nagaland	4,657	6,709	3,876	615
Tripura	8,950	8,946	17,200	1,654
Arunachal Pradesh	341	1,156	660	46
Mizoram	220	531	420	4
SUB-TOTAL	1,18,997	82,312	2,58,301	8,150
TOTAL (ALL INDIA)	49,63,667	50,56,386	1,29,15,656	13,27,716

(D) — Includes Tea Gardens

(A) — Included in domestic category

(LV & MV) Means Low Voltage and Medium Voltage

TABLE No. 64—Contd.

State/U.Ts.	INDUSTRIAL H.V.		PUBLIC LIGHTING	
	Connected load (KW)	Consumers	Connected load (KW)	Consumers
Haryana	(C)	(C)	(B)	(B)
Himachal Pradesh	(C)	(C)	1,214	219
Jammu & Kashmir	(C)	(C)	386	47
Punjab	8,44,403	1,205	5,500	646
Rajasthan	6,84,630	437	9,763	3,958
Uttar Pradesh	8,66,610	541	13,914	4,902
Chandigarh	29,124	105	1,758	190
Delhi	1,14,671	240	20,710	1,378
SUB-TOTAL	25,39,438	2,528	53,245	11,340
Gujarat	11,34,642	1,735	37,018	11,444
Madhya Pradesh	12,58,117	805	30,988	11,994
Maharashtra	32,47,752	4,127	50,703	24,524
Goa, Daman & Diu	(C)	(C)	409	551
D & N Haveli	600	10	250	58
SUB-TOTAL	56,41,111	6,677	1,19,368	48,571
Bihar	4,57,260	1,105	10,013	5,893
Orissa	4,35,889	315	13,149	3,508
West Bengal	11,26,152	1,988	14,341	441
D.V.C.	4,25,000	26	..	..
A & N Islands . . . . .	..	..	123	60
Sikkim . . . . .	..	..	67	..
SUB-TOTAL	24,44,301	3,434	37,693	9,902
Andhra Pradesh	11,78,967	1,511	38,873	26,326
Karnataka	8,72,041	1,432	26,954	9,335(E)
Kerala	4,77,399	476	22,357	1,410
Tamil Nadu	13,34,078	1,497	44,924	37,292
Pondicherry	28,200	47	1,600	29
Lakshadweep . . . . .	..	..	84	24
Sub-TOTAL	38,90,685	4,963	1,34,792	74,416
Assam	68,710	132	3,877	4,196
Manipur . . . . .	..	..	27	..
Meghalaya . . . . .	..	..	129	114
Nagaland . . . . .	..	..	440	590
Tripura	(C)	(C)	600	130
Arunachal Pradesh . . . . .	..	..	327	37
Mizoram	300	8	155	12
Sub-TOTAL	69,010	140	5,555	5,079
TOTAL (ALL INDIA)	1,45,84,545	17,742	3,50,653	1,49,308

(C) — Included in Industrial Low and Medium Voltage.

(B) — Included in Miscellaneous category.

TABLE NO. 64—Contd.

State/U. Ts.	TRACTION		AGRICULTURAL	
	Connected Load (KW)	Consumers	Connected Load (KW)	Consumers
Haryana . . . . .	..	..	11,54,388	2,50,772
Himachal Pradesh . . . . .	..	..	23,099	2,152
Jammu & Kashmir . . . . .	..	..	18,864	1,067
Punjab . . . . .	..	..	11,90,500	3,34,026
Rajasthan . . . . .	..	..	11,69,582	2,42,256
Uttar Pradesh	1,06,670	4	21,05,108	3,87,970
Chandigarh . . . . .	..	..	1,833	366
Delhi . . . . .	..	..	(C)	(C)
SUB-TOTAL	1,06,670	4	56,63,374	12,18,609
Gujarat	50,000	5	18,74,423	2,61,785
Madhya Pradesh	99,500	12	10,70,695	4,17,896
Maharashtra	42,103	13	26,12,702	7,95,077
Goa, Daman & Diu . . . . .	..	..	14,318	2,532
D & N Haveli . . . . .	..	..	350	(H)
SUB-TOTAL	1,91,603	30	55,72,488	14,77,290
Bihar	67,000	8	4,84,057	1,84,171
Orissa	6,950	10	1,19,722	18,548
West Bengal	116,687	13	1,49,130	26,193
D.V.C.	90,000	7	..	..
A & N Islands . . . . .	..	..	..	..
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	2,80,637	38	7,52,909	2,28,912
Andhra Pradesh	2,11,029	12	19,99,814	5,35,385
Karnataka . . . . .	..	..	12,12,362	3,64,725
Kerala . . . . .	..	..	3,09,778	1,08,579
Tamil Nadu	34,828	5	30,93,106	9,51,622
Pondicherry . . . . .	..	..	37,990	7,598
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	2,45,857	17	66,53,050	19,67,909
Assam . . . . .	..	..	60,501	1,923
Manipur . . . . .	..	..	4,000	1
Meghalaya . . . . .	..	..	25	53
Nagaland . . . . .	..	..	..	..
Tripura . . . . .	..	..	6,000	545
Arunachal Pradesh . . . . .	..	..	..	..
Mizoram . . . . .	..	..	..	..
SUB-TOTAL . . . . .	..	..	70,526	2,522
TOTAL (ALL INDIA)	8,24,767	89	1,87,12,347	48,95,242

TABLE NO. 64—Contd.

State/U. Ts.	PUBLIC WATERWORKS		MISCELLANEOUS	
	Connected Load (KW)	Consumers	Connected Load (KW)	Consumers
Haryana	20,883	1,217	49,489	6,185
Himachal Pradesh	(C)	(C)	24,675	40
Jammu & Kashmir	11,089	379	22,092	2,366
Punjab	(F)	(F)	..	1
Rajasthan	77,999	6,234	56,833	2,993
Uttar Pradesh	63,260	1,602	..	..
Chandigarh	4,734	180	7,663	9
Delhi	37,675	39	..	..
SUB-TOTAL	2,15,040	9,651	1,60,752	11,594
Gujarat	1,04,926	6,700	14,976	49
Madhya Pradesh	67,365	3,914	21	20
Maharashtra	1,38,027	7,176	2,27,926	4,799
Goa, Daman & Diu	240	34	..	..
D & N Haveli	40	221	..	..
SUB-TOTAL	3,10,598	18,045	2,42,923	4,868
Bihar	23,000	751	..	..
Orissa	23,798	758	29,871	260
West Bengal	1,04,704	557	41,615	587
D.V.C. . . . .	..	..	5,000	4
A & N Islands	35	7	76	152
Sikkim . . . . .	..	..	..	..
SUB-TOTAL	1,51,537	2,073	76,562	1,003
Andhra Pradesh	28,749	1,628	2,23,771	32,842
Karnataka	71,911	3,144	..	..
Kerala	15,303	594	..	..
Tamil Nadu	48,586	14,540	95,430	51,902
Pondicherry	3,600	16	..	..
Lakshadweep . . . . .	..	..	..	..
SUB-TOTAL	1,68,149	19,922	3,19,201	84,744
Assam	8,567	357	47,784	364
Manipur	70	14	..	..
Meghalaya	310	34	7,492	20
Nagaland	194	11	6,135	41
Tripura	1,150	74	7,500	167
Arunachal Pradesh	42	3	500	988
Mizoram	64	4	240	5
SUB-TOTAL	10,397	497	69,651	1,434
TOTAL (ALL INDIA)	8,55,721	50,188	8,69,089	1,03,643

NOTE :—In certain cases figures for the year 1982-83 may not be consistent with the previous years figures because of improper reporting or revision of last year data by Electricity Board/Licensees.

(F) — Consumers & connected load of Punjab S.E.B. are included in agricultural category.

TABLE NO. 63

Average Electricity Consumption per Consumer Regionwise/Statewise-Categorywise during 1982-83

(in thousand KWH)

Region	State/U.Ts.	Total Average All Categories	Domestic	Commercial
Northern Region	Haryana	2.31	0.36	0.57
	Himachal Pradesh	0.63	0.18	0.72
	Jammu & Kashmir	1.90	0.53	0.67
	Punjab	2.30	0.35	0.57
	Rajasthan	2.04	0.29	0.68
	Uttar Pradesh	4.20	0.74	4.48
	Chandigarh	2.09	0.82	3.43
	Delhi	2.24	0.96	4.65
	NORTHERN REGION	2.59	0.52	1.66
Western Region	Gujarat	2.26	0.30	0.77
	Madhya Pradesh	2.68	0.34	0.67
	Maharashtra	2.61	0.53	1.47
	Goa, Daman & Diu	1.39	0.35	0.80
	D & N Haveli	2.30	0.40	0.01
	WESTERN REGION	2.50	0.42	1.08
Eastern Region	Bihar (I)	4.80	1.06	0.50
	Orissa	4.30	0.31	0.68
	West Bengal (I)	4.37	0.93	1.69
	A & N Islands	0.61	0.30	0.88
	Sikkim	1.94	1.00	0.98
	EASTERN REGION	4.47	0.62	1.13
Southern Region	Andhra Pradesh	2.38	0.37	0.75
	Karnataka	2.25	0.46	0.67
	Kerala	1.50	0.44	0.73
	Tamil Nadu	1.86	0.86	1.08
	Pondicherry	2.15	0.47	0.66
	Lakshadweep	0.29	0.19	0.78
	SOUTHERN REGION	2.02	0.40	0.87
North Eastern Region	Assam	2.91	0.48	1.39
	Manipur	0.45	0.35	0.49
	Meghalaya	2.30	0.55	0.24
	Nagaland	0.68	0.22	0.77
	Tripura	1.05	0.63	0.84
	Arunachal Pradesh	0.83	0.36	0.91
	Mizoram	0.88	0.64	1.17
		NORTH EASTERN REGION	2.10	0.46	20.81
	TOTAL (ALL INDIA)	2.52	0.46	1.16

(I) Including D.V.C.

TABLE No. 65—Contd.

(In thousand KWH)

State/U.Ts.	Industrial L.V. & M.V.	Industrial H.V.	Public Lighting
Haryana	29.46	(B)	(B)
Himachal Pradesh	19.64	(B)	8.86
Jammu & Kashmir	17.67	(B)	362.77
Punjab	10.26	1,632.96	22.60
Rajasthan	5.97	2,203.02	5.74
Uttar Pradesh	11.40	5,026.30	6.81
Chandigarh	17.44	447.81	18.74
Delhi	7.94	1,816.67	37.05
NORTHERN REGION	9.24	2,915.89	13.76
Gujarat	7.02	2,535.41	6.87
Madhya Pradesh	6.14	4,715.56	3.99
Maharashtra	7.80	1,664.16	7.10
Goa, Daman & Diu	32.76	(B)	5.77
D & N Haveli	15.26	495.00	3.10
WESTERN REGION	7.21	2,271.66	6.26
Bihar (I)	3.79	2,813.10	1.44
Orissa	7.52	6,334.51	2.91
West Bengal (I)	5.09	1,236.67	117.71
A & N Islands	15.13	..	7.33
Sikkim	6.90	..	..
EASTERN REGION	4.85	2,493.40	7.22
Andhra Pradesh	7.77	2,294.57	2.71
Karnataka	4.76	2,808.97	8.94
Kerala	6.96	3,266.89	33.19
Tamil Nadu	3.72	2,233.86	2.45
Pondicherry	5.65	1,250.43	84.48
Lakshadweep	0.20	..	3.33
SOUTHERN REGION	5.32	2,508.05	3.97
Assam	40.94	2,031.29	0.67
Manipur	2.36	..	N.A.
Meghalaya	106.70	..	2.19
Nagaland	2.00	..	0.81
Tripura	5.13	(B)	11.54
Arunachal Pradesh	37.17	..	52.16
Mizoram	61.67	(B)	115.83
NORTH EASTERN REGION	30.27	1,915.21	1.73
TOTAL (ALL INDIA)	7.08	2,469.65	5.60

NOTE :—L.V. & H.V. means low and medium voltage

H.V. means high voltage.

(B) — Included in Industrial Low and Medium Voltage.

N.A. — Not available.

TABLE NO. 65—Contd.

(In thousand KWH)

State/U.Ts.	Traction	Agricultural	Public Water Works
Haryana . . . . .	..	5.29	18.26
Himachal Pradesh . . . . .	..	4.26	..
Jammu & Kashmir . . . . .	..	37.82	184.69
Punjab . . . . .	..	6.33	(E)
Rajasthan . . . . .	..	4.90	27.43
Uttar Pradesh	1,15,265.00	8.79	105.56
Chandigarh . . . . .	..	3.20	5.56
Delhi . . . . .	..	..	(F)
NORTHERN REGION	1,15,265.00	6.64	45.70
Gujarat	25,680.00	5.30	28.87
Madhya Pradesh	12,232.50	1.40	47.82
Maharashtra	53,267.69	2.95	56.15
Goa, Daman & Diu . . . . .	..	2.86	57.35
D & N Haveli . . . . .	..	..	0.68
WESTERN REGION	32,255.67	2.93	43.53
Bihar (I)	49,751.25	3.36	73.41
Orissa	14,101.00	3.96	54.35
West Bengal (I)	33,233.07	3.59	317.76
A & N Islands . . . . .	..	..	11.43
Sikkim . . . . .	..	..	..
EASTERN REGION	25,553.95	3.43	131.89
Andhra Pradesh	11,485.00	2.74	63.09
Karnataka . . . . .	..	1.31	..
Kerala . . . . .	..	0.99	71.36
Tamil Nadu	19,000.00	2.63	6.36
Pondicherry . . . . .	..	4.97	376.87
Lakshadweep . . . . .	..	..	..
SOUTHERN REGION	13,695.29	2.34	12.23
Assam . . . . .	..	4.66	24.12
Manipur . . . . .	..	..	102.86
Meghalaya . . . . .	..	3.96	15.88
Nagaland . . . . .	..	..	13.64
Tripura . . . . .	..	6.70	35.13
Arunachal Pradesh . . . . .	..	..	43.33
Mizoram . . . . .	..	..	50.00
NORTH REGION EASTERN . . . . .	..	6.10	27.50
TOTAL (ALL INDIA)	59,579.77	3.64	35.02

(E) — Included in Agricultural category.

(F) — Included in Industrial high voltage.

TABLE NO 66

Average Connected Load per Consumer Regionwise/Statewise-Categorywise as on 31st March, 1983

(in KW)

Region	State/U.Ts.	Total Average/all Categories	Domestic	Commercial
<i>Northern Region</i>	Haryana	1.91	0.39	0.60
	Himachal Pradesh	0.91	0.52	1.21
	Jammu & Kashmir	0.66	0.25	0.47
	Punjab	1.58	0.53	0.86
	Rajasthan	2.13	0.57	0.78
	Uttar Pradesh	2.53	0.59	2.75
	Chandigarh	3.02	1.81	6.11
	Delhi	1.24	0.63	2.04
	NORTHERN REGION	1.84	0.55	1.21
<i>Western Region</i>	Gujarat	1.71	0.52	0.80
	Madhya Pradesh	1.90	0.53	0.90
	Maharashtra	2.00	0.69	1.16
	Goa, Daman & Diu	0.55	0.32	0.31
	D & N Haveli	0.90	0.35	0.51
		WESTERN REGION	1.87	0.60	0.99
<i>Eastern Region</i>	Bihar	2.06	0.58	0.80
	Orissa	2.16	0.75	0.87
	West Bengal	2.49	0.96	1.64
	D.V.C.	13,000.75	..	10.00
	A & N Islands	0.57	0.50	0.60
	Sikkim	1.05	1.20	(A)
		EASTERN REGION	2.44	0.81	1.23
<i>Southern Region</i>	Andhra Pradesh	0.89	0.46	0.71
	Karnataka	1.50	0.59	0.39
	Kerala	1.32	0.69	0.75
	Tamil Nadu	1.74	0.54	0.73
	Pondicherry	2.00	0.64	0.47
	Lakshadweep	0.69	0.58	0.97
		SOUTHERN REGION	1.65	0.56	0.68
<i>North Eastern Region</i>	Assam	2.94	1.36	1.63
	Manipur	0.44	0.20	14.54
	Meghalaya	1.20	0.38	1.34
	Nagaland	0.71	0.43	0.69
	Tripura	1.38	0.50	1.00
	Arunachal Pradesh	0.30	0.23	0.29
	Mizoram	0.73	0.64	0.41
		NORTH EASTERN REGION	2.07	0.92	1.44
	TOTAL (ALL INDIA)	1.84	0.59	0.98

TABLE NO. 66—Contd.

State/U.Ts.	Industrial LV & MV	Industrial HV	Public Lighting
Haryana	21.01	(C)	..
Himachal Pradesh	15.58	(C)	5.54
Jammu & Kashmir	10.54	(C)	8.21
Punjab	10.49	700.75	8.51
Rajasthan	10.56	1,566.66	2.47
Uttar Pradesh	12.48	1,601.87	2.84
Chandigarh	13.66	277.37	9.25
Delhi	6.52	477.79	15.03
NORTHERN REGION	12.19	1,004.52	4.69
Gujarat	9.36	653.97	3.23
Madhya Pradesh	9.27	1,562.88	2.58
Maharashtra	9.98	786.95	2.07
Goa, Daman & Diu	6.67	(C)	0.74
D & N Haveli	12.89	60.00	4.31
WESTERN REGION	9.60	844.86	2.46
Bihar	7.90	413.81	1.70
Orissa	15.44	1,383.77	3.75
West Bengal	6.25	566.47	32.52
D.V.C. . . . .	..	16,346.15	..
A & N Islands	5.00	..	2.05
Sikkim	21.00	..	..
EASTERN REGION	7.88	711.79	3.81
Andhra Pradesh	11.07	780.26	1.48
Karnataka	5.81	608.97	2.89
Kerala	93.42	1,002.94	15.86
Tamil Nadu	7.45	891.17	1.20
Pondicherry	15.00	600.00	55.17
Lakshadweep	8.12	..	3.50
SOUTHERN REGION	8.71	783.94	1.81
Assam	44.27	520.53	0.92
Manipur	5.62	..	..
Meghalaya	53.08	..	1.13
Nagaland	6.30	..	0.74
Tripura	10.40	(C)	4.61
Arunachal Pradesh	14.35	..	8.84
Mizoram	105.00	37.50	12.92
NORTH EASTERN REGION	31.69	492.93	1.09
TOTAL (ALL INDIA)	9.99	822.03	2.35

(A) — Included in Domestic.

(C) — Included in Industrial Low & Medium voltage.

TABLE No. 66—Contd.

State/U.Ts.	Traction	Agricultural	Public Water Works
Haryana . . . . .	..	4.60	17.16
Himachal Pradesh . . . . .	..	10.73	(C)
Jammu & Kashmir . . . . .	..	17.68	29.26
Punjab . . . . .	..	3.56	(D)
Rajasthan . . . . .	..	4.83	12.41
Uttar Pradesh	26,667.50	5.42	39.49
Chandigarh . . . . .	..	5.01	26.30
Delhi . . . . .	..	(C)	966.03
NORTHERN REGION	26,667.50	4.65	22.28
Gujarat	10,000.00	7.16	15.66
Madhya Pradesh	8,291.66	2.56	17.21
Maharashtra	3,238.69	3.87	19.23
Goa, Daman & Diu . . . . .	..	5.65	7.06
D & N Haveli . . . . .	..	(B)	0.18
WESTERN REGION	6,386.77	3.77	17.21
Bihar	8,375.00	2.63	30.63
Orissa	695.00	6.45	31.39
West Bengal	8,975.92	5.69	187.98
D.V.C.	12,857.14	..	..
A & N Islands . . . . .	..	..	5.00
Sikkim . . . . .	..	..	..
EASTERN REGION	7,385.18	3.29	73.12
Andhra Pradesh	17,585.75	3.73	17.66
Karnataka . . . . .	..	3.32	22.87
Kerala . . . . .	..	2.85	25.76
Tamil Nadu	6,965.60	3.25	3.34
Pondicherry . . . . .	..	5.00	225.00
Lakshadweep . . . . .	..	..	..
SOUTHERN REGION	14,462.18	3.38	8.44
Assam . . . . .	..	31.46	24.00
Manipur . . . . .	..	..	5.00
Meghalaya . . . . .	..	0.58	9.12
Nagaland . . . . .	..	..	17.64
Tripura . . . . .	..	11.01	15.54
Arunachal Pradesh . . . . .	..	..	14.00
Mizoram . . . . .	..	..	16.00
NORTH EASTERN REGION . . . . .	..	27.96	20.92
TOTAL (ALL INDIA)	9,267.04	3.82	17.05

(B) — Included in Public Water Works Category.

(D) — Included in Agricultural Category.

SECTION X
URBAN & RURAL ELECTRIFICATION

URBAN & RURAL ELECTRIFICATION

High priority continues to be attached to the implementation of Rural Electrification works. The revised programme includes among other things maximisation of power generation, electrification of all villages as speedily as possible and increase in irrigation potential through energisation of pumpsets. Rural Electrification programme is being implemented by the States and Union Territories in their respective areas under the States Plans supplemented by the REC financing and loans from Financial Institutions. During the year 1982-83, 27,376 villages were electrified bringing the total number of villages electrified to 3,23,881 as on 31st March, 1983 which represents 56.2 per cent of the total registered villages in the country. The States of Punjab, Haryana and Kerala & Union Territories of Chandigarh, Delhi, Pondicherry and Lakshadweep have already achieved 100% electrification of villages in their territory. Other States which are likely to achieve 100% electrification in near future are Tamil Nadu (99.4%), Goa, Daman & Diu (92.9%), Dadra & Nagar Haveli (87.5%).

On the regional basis the Southern Region tops with (81.6%) of villages electrification followed by Western Region (62.1%), Northern Region (57.2%), Eastern Region (44.6%), North Eastern Region (31.0%). The rural population on all India basis enjoying the benefits of village electrification was 73.0% as on 31st March, 1983 compared to (70.2%) during the last year. All the 3126 towns in the country stand electrified as on 31st March, 1983.

The energisation of pumpsets also progressed satisfactorily. The total number of energised pumpsets in the country were 4973305 as on 31st March, 1983. Tamil Nadu continued to have maximum number of energised pumpsets (965017) followed by Maharashtra (790645).

The salient features of Urban and Rural Electrification are covered in various tables of this section.

TABLE NO. 67

Towns Electrified in Various Population Groups (1971 Census) Regionwise/Statewise As On 31st March, 1983

Region	State/Uts.	Total Number	POPULATION GROUPS		
			Below 5000	5000 to 9999	10000 to 19999
<i>Northern Region</i>	Haryana	65	5	20	15
	Himachal Pradesh	36	23	6	5
	Jammu & Kashmir	45	20	17	3
	Punjab	108	11	30	33
	Rajasthan	157	4	41	67
	Uttar Pradesh	325	17	94	100
	Chandigarh	2	..	..	1
	Delhi	3	..	..	..
	SUB-TOTAL	741	80	208	224
<i>Western Region</i>	Gujarat	216	5	71	73
	Madhya Pradesh	250	12	96	74
	Maharashtra	289	14	70	98
	Goa, Daman & Diu	13	4	4	1
	D. & N. Haveli . . . . .	..	..	..	..
		SUB-TOTAL	768	35	241	246
<i>Eastern Region</i>	Bihar	202	12	47	72
	Orissa	81	2	30	23
	West Bengal	223	10	59	59
	A. & N. Islands	1	..	..	..
	Sikkim	7	6	..	1
		SUB-TOTAL	514	30	136	155
<i>Southern Region</i>	Andhra Pradesh	224	8	45	79
	Karnataka	245	26	51	105
	Kerala	88	2	9	25
	Tamil Nadu	439	101	97	118
	Pondicherry	6	..	2	..
	Lakshadweep . . . . .	..	..	..	..
		SUB-TOTAL	1,002	137	204	327
<i>North Eastern Region</i>	Assam	72	8	23	26
	Manipur	8	3	4	..
	Meghalaya	6	1	1	3
	Nagaland	3	..	..	2
	Tripura	6	..	1	4
	Arunachal Pradesh	4	3	1	..
	Mizoram	2	..	1	..
		SUB-TOTAL	101	15	31	35
	TOTAL (ALL INDIA)	3,126	297	820	987

TABLE No. 67—Contd.

State	POPULATION GROUPS			Total number electrified	Electrified during 1982-83
	20000 to 49999	50000 to 99999	Over one lakh		
Haryana	14	9	2	65	..
Himachal Pradesh	1	1	..	36	..
Jammu & Kashmir	3	..	2	45	..
Punjab	22	8	4	108	..
Rajasthan	31	7	7	157	..
Uttar Pradesh	71	21	22	325	..
Chandigarh . . . . .	..	..	1	..	..
Delhi . . . . .	..	1	2	3	..
SUB-TOTAL	142	47	40	741	..
Gujarat	42	18	7	216	..
Madhya Pradesh	43	14	11	250	..
Maharashtra	65	25	17	289	..
Goa, Daman & Diu	3	1	..	13	..
Dadra & Nagar Haveli . . . . .	..	..	..	..	..
SUB-TOTAL	153	58	35	768	..
Bihar	51	11	9	202	..
Orissa	20	2	4	81	..
West Bengal	49	31	15	223	..
A. & N. Islands	1	..	..	1	..
Sikkim . . . . .	..	..	..	7	..
SUB-TOTAL	121	44	28	514	..
Andhra Pradesh	61	18	13	224	..
Karnataka	42	11	10	245	..
Kerala	40	7	5	88	..
Tamil Nadu	79	27	17	439	..
Pondicherry	3	1	..	6	..
Lakshadweep . . . . .	..	..	..	..	..
SUB-TOTAL	225	64	45	1,002	..
Assam	9	5	1	72	..
Manipur . . . . .	..	..	1	8	..
Meghalaya . . . . .	..	1	..	6	..
Nagaland	1	..	..	3	..
Tripura . . . . .	..	..	1	6	..
Arunachal Pradesh . . . . .	..	..	..	4	..
Mizoram	1	..	..	2	..
SUB-TOTAL	11	6	3	101	..
TOTAL (ALL INDIA).	652	219	151	3,126	..

TABLE NO. 68

Villages electrified in various population groups (1971 Census) & Rural population benefited by Electricity Regionwise/Statewise as on 31st March, 1983

Region	State/Uts.	Total No. of villages	Villages electrified in various population Groups		
			Below 500	500-999	1000-1999
<i>Northern Region</i>	Haryana	6,731	2,018	1,909	1,673
	Himachal Pradesh	16,916	11,730	783	235
	Jammu & Kashmir (+)	6,503	3,042	1,340	652
	Punjab	12,188	5,136	3,577	2,392
	Rajasthan	33,305	8,649	4,696	2,784
	Uttar Pradesh (+).	1,12,561	26,657	15,282	8,259
	Chandigarh	26	8	10	7
	Delhi	243	43	53	79
	SUB-TOTAL	1,88,473	57,283	27,650	16,081
<i>Western Region</i>	Gujarat	18,275	3,724	4,323	3,865
	Madhya Pradesh	70,883	16,827	9,280	5,372
	Maharashtra (+)	35,778	10,209	9,522	7,242
	Goa, Daman & Diu	409	117	78	83
	D & N. Haveli	72	17	17	26
		SUB-TOTAL	1,25,417	30,894	23,220	16,588
<i>Eastern Region</i>	Bihar (+)	67,566	12,859	7,383	5,443
	Orissa	46,992	11,212	6,337	2,957
	West Bengal	38,074	5,515	4,856	4,399
	Andaman & Nicobar Island	390	135	29	19
	Sikkim (+)	405(**)	33	40	33
		SUB-TOTAL F	1,53,427	29,754	18,645	12,851
<i>Southern Region</i>	Audhra Pradesh (+)	27,221	4,227	4,764	6,103
	Karnataka	26,826	8,030	6,042	4,091
	Kerala	1,268	4	2	16
	Tamil Nadu	15,735	2,889	3,416	4,544
	Pondicherry	333	162	85	57
	Lakshadweep	10	1	..	1
		SUB-TOTAL	71,393	15,313	14,309	14,812
<i>North Eastern Region</i>	Assam (+)	21,995	4,066	2,075	1,137
	Manipur (+).	1,949	141	99	113
	Meghalaya (+)	4,583	778	167	46
	Nagaland	960	280	129	90
	Tripura (+)	4,727	1,099	246	114
	Arunachal Pradesh.	2,973	472	48	22
	Mizoram	229	12	8	10
		SUB-TOTAL	37,416	6,848	2,772	1,532
	TOTAL (ALL INDIA)	5,76,126	1,40,092	86,596	61,864

NOTE : —(**) The revenue block has been reckoned as the smallest administrative unit by the census authority.

TABLE No. 68—Contd.

State/Uts.	Villages electrified in various population groups			
	2000-4999	5000-9999	10000 & Above	Total electrified as on 31-3-1983
Haryana	975	148	8	6,731
Himachal Pradesh	45	1	..	12,794
Jammu & Kashmir (+)	173	7	..	5,214
Punjab	940	79	2	12,126E
Rajasthan	1,067	104	10	17,310
Uttar Pradesh (+)	2,856	293	20	53,367
Chandigarh . . . . .	..	1	..	26
Delhi	60	6	2	243
SUB-TOTAL	6,116	639	42	1,07,811
Gujarat	1,855	247	16	14,030
Madhya Pradesh	1,266	87	6	32,838
Maharashtra (+)	3,039	490	75	30,577
Goa, Daman & Diu	77	23	2	380
D. & N. Haveli	5	..	..	65
SUB-TOTAL	6,242	847	99	77,890
Bihar (+)	2,960	467	75	29,187
Orissa	751	21	2	21,280
West Bengal	2,453	329	42	17,594
A. & N. Islands	1	..	..	184
Sikkim (+)	6	..	..	112
SUB-TOTAL	6,171	817	119	68,357
Andhra Pradesh (+)	4,766	721	80	20,661
Karnataka	1,908	235	9	20,315
Kerala	1,122	316	808	1,268
Tamil Nadu	3,895	752	140	15,636
Pondicherry	26	3	..	333
Lakshadweep	6	2	..	10
SUB-TOTAL	10,723	2,029	1,037	58,223
Assam (+)	252	11	..	7,541
Manipur (+)	66	8	..	427
Meghalaya (+)	6	..	..	997
Nagaland	15	1	..	515
Tripura	40	1	..	1,500
Arunachal Pradesh (+)	10	..	..	552
Mizoram	36	2	..	68
SUB-TOTAL	425	23	..	11,600
TOTAL (ALL INDIA))	29,677	4,355	1,297	3,23,881

NOTE :—(+) Population wise break up estimated.
E 62 villages have been declared un-inhabited.

TABLE NO. 68—Contd.

State/Uts.	% electrified	Villages electrified during 1982-83	Total population@ (lakhs)	Rural population benefited (lakhs)	% age benefited
Haryana	100.00	**	82.64	82.64	100.00
Himachal Pradesh	75.6	1,577	32.19	26.70	82.9
Jammu & Kashmir	80.2	271	37.59	25.89*(a)	68.7
Punjab	100.0	**	103.35	103.35	100.0
Rajasthan	52.0	1,103	212.22	144.56	68.1
Uttar Pradesh	47.4	5,842	759.53	448.37	59.1
Chandigarh	100.0	**	0.24	0.24	100.0
Delhi	100.0	**	4.19	4.19	100.00
SUB-TOTAL	57.2	8,793	1,231.95	835.94	67.8
Gujarat	76.8	601	192.01	167.35	87.2
Madhya Pradesh	46.3	3,818	348.69	214.22	61.4
Maharashtra	85.5	1,727	347.01	325.42	93.8
Goa, Daman & Diu	92.9	6	6.31	6.30	99.8
D. & N. Haveli	87.5	3	0.74	0.72	97.3
SUB-TOTAL	62.1	6,155	894.76	714.01	79.7
Bihar	43.2	4,046	507.19	224.90(b)	44.3
Orissa	45.3	1,270	200.99	137.02	68.2
West Bengal	46.2	1,310	333.45	212.74	63.1
A. & N. Islands	46.9	39	0.89	0.71	79.8
Sikkim	27.7	26	1.90	0.54(c)	28.4
SUB-TOTAL	44.6	6,691	1,044.42	575.91	55.1
Andhra Pradesh	75.9	1,471	351.00	334.15	96.2
Karnataka	75.7	2,689	221.77	195.12	88.0
Kerala	100.0	**	178.81	178.81	100.0
Tamil Nadu	99.4	25	287.34	286.86	99.8
Pondicherry	100.0	**	2.73	2.73	100.0
Lakshadweep	100.0	1	0.318	0.318	100.0
SUB-TOTAL	81.6	4,186	1,041.97	997.98	95.7
Assam	34.3	868	133.36	58.76	44.1
Manipur	21.9	31	9.31	5.68(c)	61.0
Meghalaya	21.8	129	8.65	3.31(d)	38.3
Nagaland	53.6	76	4.65	3.32	71.4
Tripura	31.7	310	13.94	8.65	62.1
Arunachal Pradesh	18.6	122	4.50	1.61	35.8
Mizoram	29.7	15	2.95	1.46	49.5
SUB-TOTAL	31.0	1,551	177.36	82.79	46.6
TOTAL (ALL INDIA)	56.2	27,376	4,390.46	3,206.65	73.0

NOTE :— *Figure Provisional

(a) As on 31-12-79

(b) As on 30-4-80

(c) As on 31-12-81

(d) As on 31-3-82

** 100% village electrification have been already achieved.

@ Figure pertains to rural population only.

TABLE NO. 69

Irrigation Pumpsets Energised Regionwise/Statewise As On 31st March, 1983

Region	State/Uts	No. of Pumpsets energised	Agricultural Consumption	
			Quantum (GWH)	% to total consumption in the State
<i>Northern Region</i>	Haryana	2,51,989	1,327.41	39.91
	Himachal Pradesh	2,080	9.18	2.75
	Jammu & Kashmir	1,173	40.35	6.03
	Punjab	3,33,272	2,115.03	36.42
	Rajasthan	2,44,392	1,188.37	36.22
	Uttar Pradesh	4,60,794	3,411.74	34.62
	Chandigarh	544	1.17	0.61
	Delhi	14,108	(F)	..
	SUB-TOTAL	13,08,352	8,093.25	30.91
<i>Western Region</i>	Gujarat	2,61,761	1,387.31	16.51
	Madhya Pradesh	3,93,123	586.65	10.01
	Maharashtra	7,90,645	2,345.09	15.23
	Goa, Daman & Diu	2,535	7.24	3.20
	D. & N. Haveli	318	0.26	2.94
		SUB-TOTAL	14,48,382	4,326.55	14.47
<i>Eastern Region</i>	Bihar	1,80,779	618.05	13.07
	Orissa	22,900	73.37	2.75
	West Bengal	27,490	94.16	1.51
	A. & N. Islands	1	..	..
	Sikkim	NIL	..	..
		SUB-TOTAL	2,31,170	785.58	5.76
<i>Southern Region</i>	Andhra Pradesh	5,39,960	1,465.18	20.76
	Karnataka	3,58,113	479.34	7.69
	Kerala	1,11,148	107.20	3.66
	Tamil Nadu	9,65,017	2,506.60	29.22
	Pondicherry	8,145	37.75	25.95
	Lakshadweep	NIL	..	..
		SUB-TOTAL	19,82,383	4,596.07	18.43
<i>North Eastern Region</i>	Assam	2,095	8.96	1.20
	Manipur	12	2.57	13.03
	Meghalaya	53	0.21	0.29
	Nagaland	NIL	..	..
	Tripura	858	3.65	8.51
	Arunachal Pradesh	NIL	..	..
	Mizoram	NIL	..	..
		SUB-TOTAL	3,018	15.39	1.64
	TOTAL (ALL INDIA)	49,73,305	17,816.84	18.64

**PERCENTAGE OF VILLAGES ELECTRIFIED IN THE COUNTRY
 AS ON 31 MARCH, 1983**

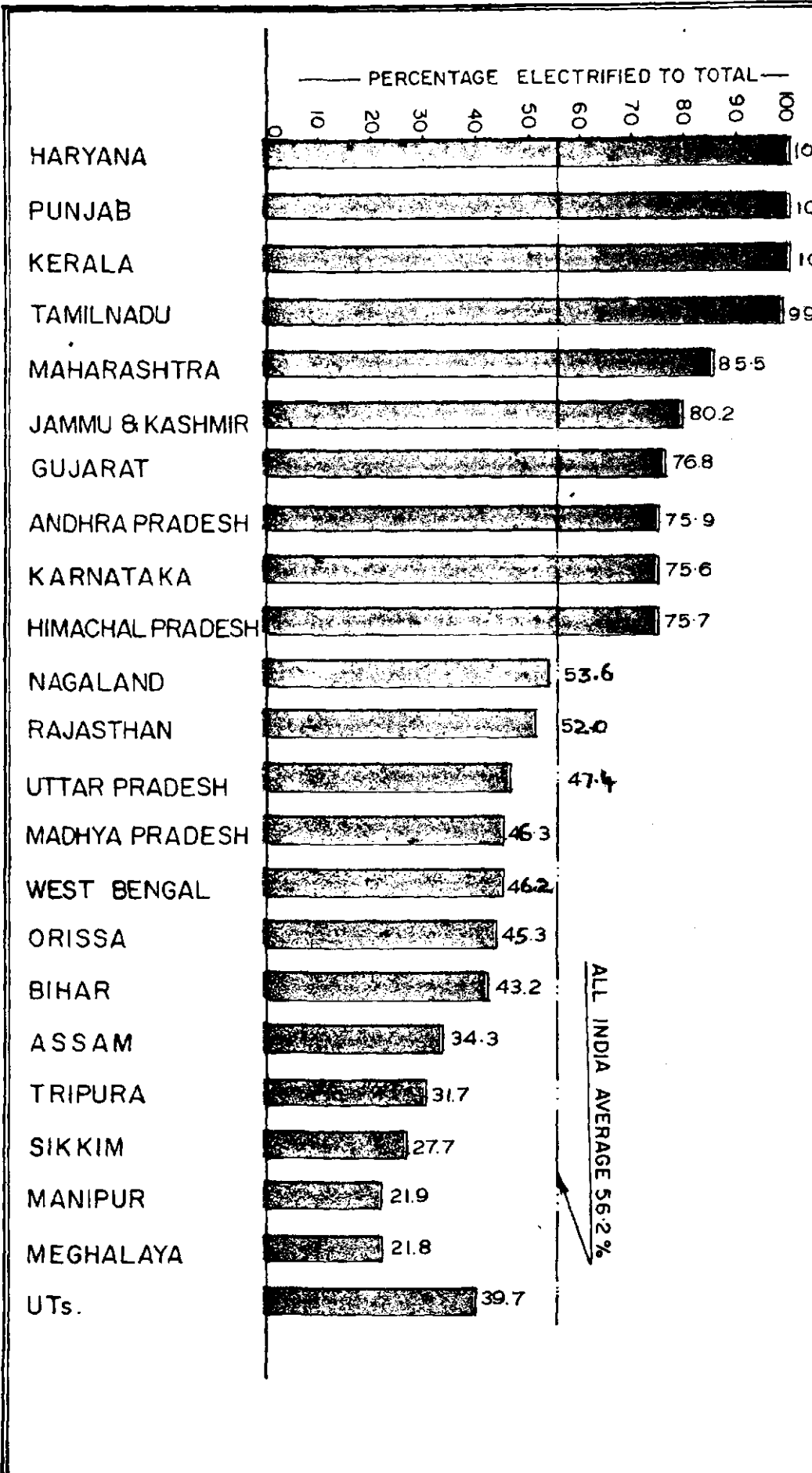


TABLE NO. 69—Contd.

State/U.Ts.	Agricultural connected load (KW)	Average capacity per pumpset (KW)	Average consumption per pumpset (KWH)	Consumption per unit of connected load (KWH/KW)
Haryana	11,54,388	4.58	5,293	1,150
Himachal Pradesh	23,099	11.10	4,266	397
Jammu & Kashmir (R)	18,864	16.08	37,816	2,139
Punjab	11,90,500	3.57	6,332	1,776
Rajasthan	11,69,582	4.79	4,905	1,016
Uttar Pradesh	21,05,108	4.57	8,794	1,621
Chandigarh	1,833	3.37	3,197	638
Delhi	..	..	..	..
Sub-Total	56,63,374	5.50	6,641	1,429
Gujarat	18,74,423	7.16	5,299	740
Madhya Pradesh	10,70,695	2.72	1,404	548
Maharashtra	26,12,702	3.30	2,950	898
Goa, Damam & Diu	14,318	5.65	2,859	506
D. & N. Haveli	350	1.10	..	743
Sub-Total	55,72,488	3.85	2,929	776
Bihar	4,84,057	2.68	3,356	1,277
Orissa	1,19,722	5.23	3,956	613
West Bengal	1,49,130	5.43	3,995	631
A. & N. Islands	..	..	..	..
Sikkim	..	..	..	..
Sub-Total	7,52,909	3.26	3,432	1,043
Andhra Pradesh	19,99,814	3.70	2,737	732
Karnataka	12,12,362	3.39	1,314	395
Kerala	3,09,778	2.79	987	346
Tamil Nadu	30,93,106	3.20	2,634	810
Pondicherry	37,990	4.66	4,968	994
Lakshadweep	..	..	..	..
Sub-Total	66,53,050	3.36	2,336	691
Assam	60,501	28.88	4,659	148
Manipur	4,000	333.33	..	..
Meghalaya	25	0.47	3,962	8,400
Nagaland	..	..	..	..
Tipura	6,000	6.99	6,697	603
Arunachal Pradesh	..	..	..	..
Mizoram	..	..	..	..
Sub-Total	70,526	23.37	6,102	218
TOTAL (ALL INDIA)	1,87,12,347	3.76	3,640	952