



भारत के विद्युत क्षेत्र का 1947 से 2024 तक का संवर्धन
GROWTH OF ELECTRICITY SECTOR IN INDIA FROM 1947-2024

भारत सरकार
GOVERNMENT OF INDIA
विद्युत मंत्रालय
MINISTRY OF POWER
केन्द्रीय विद्युत प्राधिकरण
CENTRAL ELECTRICITY AUTHORITY
नई दिल्ली
NEW DELHI
जुलाई, 2024
July, 2024

घनश्याम प्रसाद
अध्यक्ष तथा पदेन सचिव भारत सरकार
GHANSHYAM PRASAD
Chairperson & Ex-officio Secretary
To the Government Of India



केन्द्रीय विद्युत प्राधिकरण
भारत सरकार
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सेवा भवन, आर.के, पुरम
नई दिल्ली-110066

Central Electricity Authority
Ministry of Power
Sewa Bhawan, R. K. Puram
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75
आज़ादी का
अमृत महोत्सव

प्राक्कथन

केन्द्रीय विद्युत प्राधिकरण द्वारा वार्षिक रूप से प्रकाशित पुस्तिका " भारत में विद्युत क्षेत्र की संवृद्धि" विभिन्न वर्षों में भारतीय विद्युत क्षेत्र की संवृद्धि का विस्तृत परिदृश्य उपलब्ध कराती है। प्रासंगिक सूचना और सांख्यिकी आलेखों, पाई-चार्ट, मानचित्रों और सारणियों के रूप में प्रस्तुत की गई हैं। पंचवर्षीय योजनावार विकास के आरम्भ होने के बाद से भारतीय विद्युत क्षेत्र ने बहुत प्रगति की है। यह प्रकाशन महत्वपूर्ण विकास संकेतकों जैसे स्थापित विद्युत उत्पादन क्षमता, विद्युत ऊर्जा उत्पादन, पारेषण और संवितरण नेटवर्क, कैप्टिव विद्युत संयंत्रों और विद्युत खपत के पैटर्न आदि की संवृद्धि के विवरण उपलब्ध कराता है।

इस प्रकाशन के लिए आंकड़े देश में विद्युत क्षेत्र के विभिन्न संगठनों से प्राप्त किये गए हैं। प्रति व्यक्ति विद्युत खपत, खपत की विभिन्न श्रेणियों का प्रतिशतांक हिस्सा, पारेषण और संवितरण हानि आदि जैसी महत्वपूर्ण सांख्यिकी की कुछ विकसित और विकासशील राष्ट्रों के आंकड़ों के साथ तुलना की गई है। आशा है कि यह पुस्तिका भारतीय विद्युत क्षेत्र पर संक्षिप्त और लाभदायक सूचना उपलब्ध कराने में बहुत उपयोगी सिद्ध होगी।

जुलाई, 2024

घनश्याम प्रसाद

(घनश्याम प्रसाद)

घनश्याम प्रसाद
अध्यक्ष तथा पदेन सचिव भारत सरकार
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Central Electricity Authority

Ministry of Power
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FOREWORD

The booklet “Growth of Electricity Sector in India” published annually by Central Electricity Authority provides panoramic view of growth of the Indian Power Sector over the years. The relevant information and statistics have been presented in the forms of graphs, pie-charts, maps and tables. The Indian Electricity Sector has come a long way ever since 5 year plan wise development was initiated. This publication provides details of the growth of vital development indicators like Installed Electricity Generating Capacity, Electrical Energy Generation, Transmission and Distribution Network, Captive Power Plants and pattern of Electricity Consumption etc.

The data for this publication has been sourced from various power sector entities in the country. The important statistics like per capita electricity consumption, percentage share of different categories of consumption, transmission and distribution losses etc., have been compared with the data of some of the developed and developing nations. I hope that this booklet will be very helpful in providing concise & useful information on Indian Electricity Sector.

July, 2024

(GHANSHYAM PRASAD)

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प्रस्तावना

स्वतंत्रता के बाद भारत में विद्युत क्षेत्र में स्थापित क्षमता और ट्रांसमिशन व वितरण (टीएंडडी) प्रणाली दोनों में उल्लेखनीय वृद्धि हुई है। कुल विद्युत उत्पादन क्षमता (यूटिलिटी और गैर-यूटिलिटी) 1947 में 1362 मेगावाट से बढ़कर 2024 में मार्च अंत में लगभग 521.31 गीगा वाट हो गई है। प्रति व्यक्ति विद्युत खपत जो कि 1947 में केवल 16.3 यूनिट थी, 2023-24 में बढ़कर 1395 यूनिट हो गई है। पिछले कुछ वर्षों में, विद्युत कमी काफी हद तक कम हो गई है और वास्तव में, वर्तमान में हमारे पास अप्रयुक्त उत्पादन क्षमता है।

सीईए द्वारा प्रकाशित यह पुस्तिका एक नियमित प्रस्तुती है, जिसमें ग्राफ, पाई चार्ट, नक्शों और तालिकाओं के रूप में महत्वपूर्ण जानकारी शामिल है। जानकारी में शामिल विभिन्न महत्वपूर्ण संकेतकों जैसे स्थापित क्षमता, जल विद्युत क्षमता, देश की विद्युत मांग का राज्यवार पूर्वानुमान, विद्युत ऊर्जा उत्पादन, ट्रांसमिशन और वितरण नेटवर्क, विद्युत आपूर्ति की स्थिति, कैप्टिव विद्युत संयंत्र, बिजली संयंत्र, देश की विद्युत खपत के साथ-साथ प्रति व्यक्ति खपत का पैटर्न आदि विभिन्न महत्वपूर्ण संकेतकों के लिए पंचवर्षीय (जिसे पहले योजना अवधि कहा जाता था) विकास पैटर्न शामिल है। इस पुस्तिका में राज्यवार स्थापित बिजली उत्पादन क्षमता दर्शाने वाले मानचित्र भी शामिल हैं, जिससे हमारे देश का एक विशाल परिदृश्य दिखाई देता है।

इस पुस्तिका में अन्य देशों के आँकड़े जैसे कि विभिन्न स्रोतों से उत्पादन, प्रति व्यक्ति खपत के साथ-साथ श्रेणीवार विद्युत खपत भी दर्शाई गई है।

मुझे आशा है कि यह पुस्तिका सभी हितधारकों के लिए उपयोगी साबित होगी।

जुलाई, 2024

(ए. बालन)

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PREFACE

Power Sector in India has grown significantly since independence, both in the Installed Capacity and Transmission & Distribution (T&D) system. The total Power Generating Capacity of (utilities & non utilities) has increased from a meagre 1362 MW in 1947 to about 521.31 GW at the end of March, 2024. The Per Capita Electricity Consumption which was a mere 16.3 units in 1947, has increased to 1395 units in 2023-24. In the last few years, the shortages have reduced substantially and, in fact, at present we have unutilized generating capacity.

This booklet brought out by CEA is a regular feature, which contains vital information in the form of graphs, pie charts, maps and tables. The information covers 5 yearly (earlier called Plan period) pattern of growth accomplished for various important indicators like Installed Capacity, Hydroelectric Potential, State-wise forecast of Electricity Demand of the country, Electrical Energy Generation, Transmission & Distribution network, Power Supply Position, Captive Power Plants, pattern of Electricity Consumption of the country as well as Per Capita Consumption. The booklet also contains maps showing State-wise Installed Electricity Generating Capacity, thus affording a panoramic view of our country.

The Statistics from other countries i.e. Generation from various sources, Per Capita Consumption as well as category-wise Electricity Consumption are also shown in this booklet.

I am hopeful that this handy booklet would prove to be useful to all stakeholders.

July, 2024


(A.Balan)

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Table 1
Growth of Electricity Sector in India
Utilities

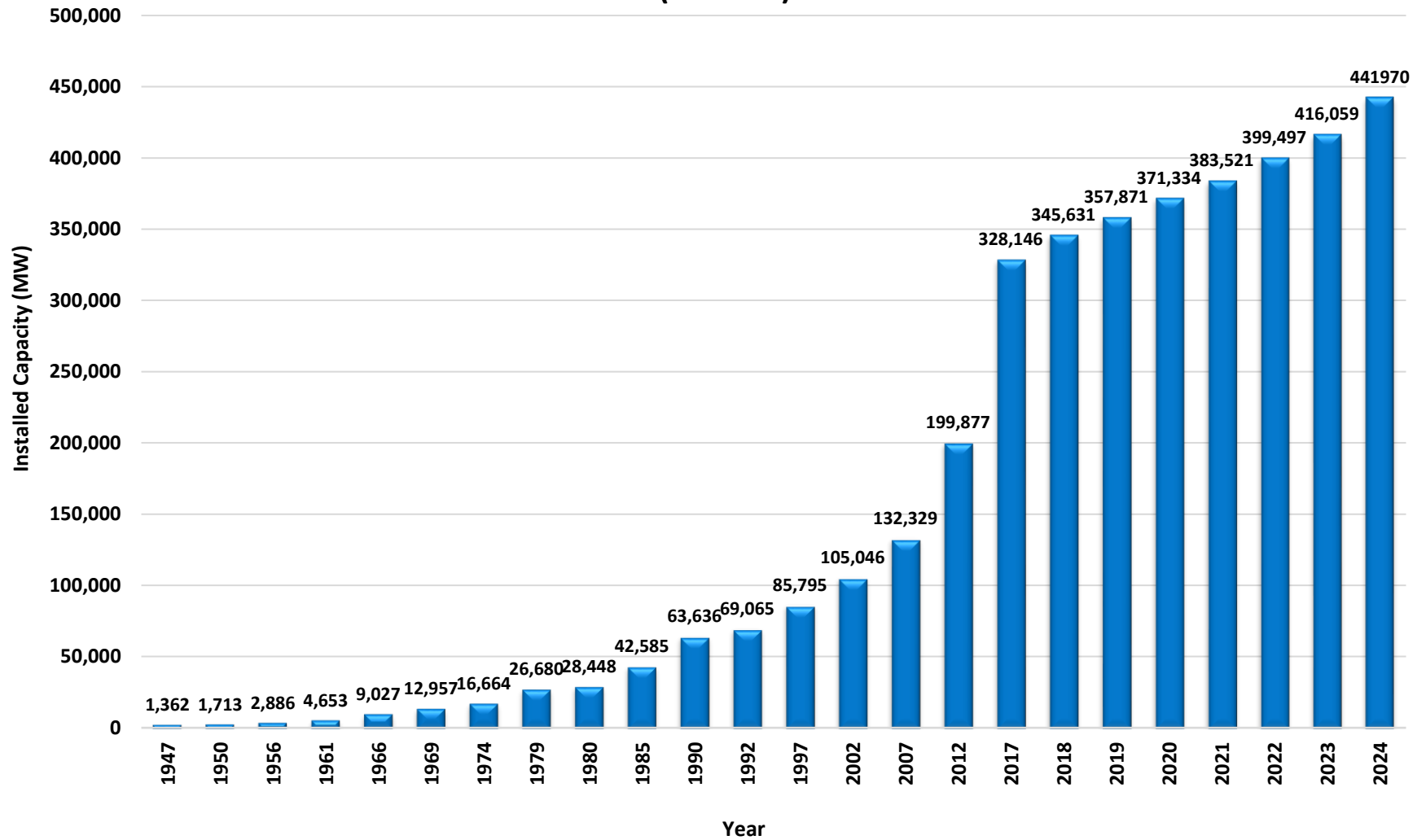
Sl. No.	As on / during financial year ending with	Installed Capacity (MW)	No.of villages electrified	Length of T & D Lines (Ckt. kms.)(#)	Per Capita Consumption (\$) (kWh)
1	31.12.1947	1,362	N.A.	23,238	16
2	31.12.1950	1,713	3,061	29,271	18
3	31.03.1956(End of the 1st Plan)	2,886	7,294	85,427	31
4	31.03.1961(End of the 2nd Plan)	4,653	21,754	157,887	46
5	31.03.1966 (End of the 3rd Plan)	9,027	45,148	541,704	74
6	31.03.1969(End of the 3 Annual Plans)	12,957	73,739	886,301	98
7	31.03.1974(End of the 4th Plan)	16,664	156,729	1,546,097	126
8	31.03.1979(End of the 5th Plan)	26,680	232,770	2,145,919	172
9	31.03.1980(End of the 2 Annual Plans)	28,448	249,799	2,351,609	172
10	31.03.1985(End of the 6th Plan)	42,585	370,332	3,211,956	229
11	31.03.1990(End of the 7th Plan)	63,636	470,838	4,407,501	329
12	31.03.1992(End of the 2 Annual Plans)	69,065	487,170	4,574,200	348
13	31.03.1997(End of the 8th Plan)	85,795	498,836	5,141,413	465
14	31.03.2002(End of the 9th Plan)	105,046	512,153	6,030,148	559
15	31.03.2007 (End of 10th Plan)	132,329	482,864	6,939,894	672
16	31.03.2012 (End of 11th Plan)	199,877	556,633	8,726,092	884
17	31.03.2017 (End of 12th Plan)	328,146	592,972	10,686,448	1,122
18	31.03.2018	345,631	597,121	11,958,511	1,149
19	31.03.2019	357,871	597,464	12,682,649	1,181
20	31.03.2020	371,334	597,464	13,279,315	1,208
21	31.03.2021	383,521	597,464	13,679,477	1,161
22	31.03.2022	399,497	597,464	13,979,990	1,255
23	31.03.2023	416,059	597,464	14,423,639	1,331
23	31.03.2024	441970	597,464	14,895,025	1395@

Note:

1. N.A. : Not Available.
2. (@) Estimated.
3. (\$) Per Capita Consumption=Gross Electrical Energy availability/ Mid year Population
4. (#) Includes 440 Volts Distribution Lines.
5. Rural electrification is based on revised definition of village electrification in the year 2004 and based on 2011 Census.

Installed Generation Capacity (Utilities)

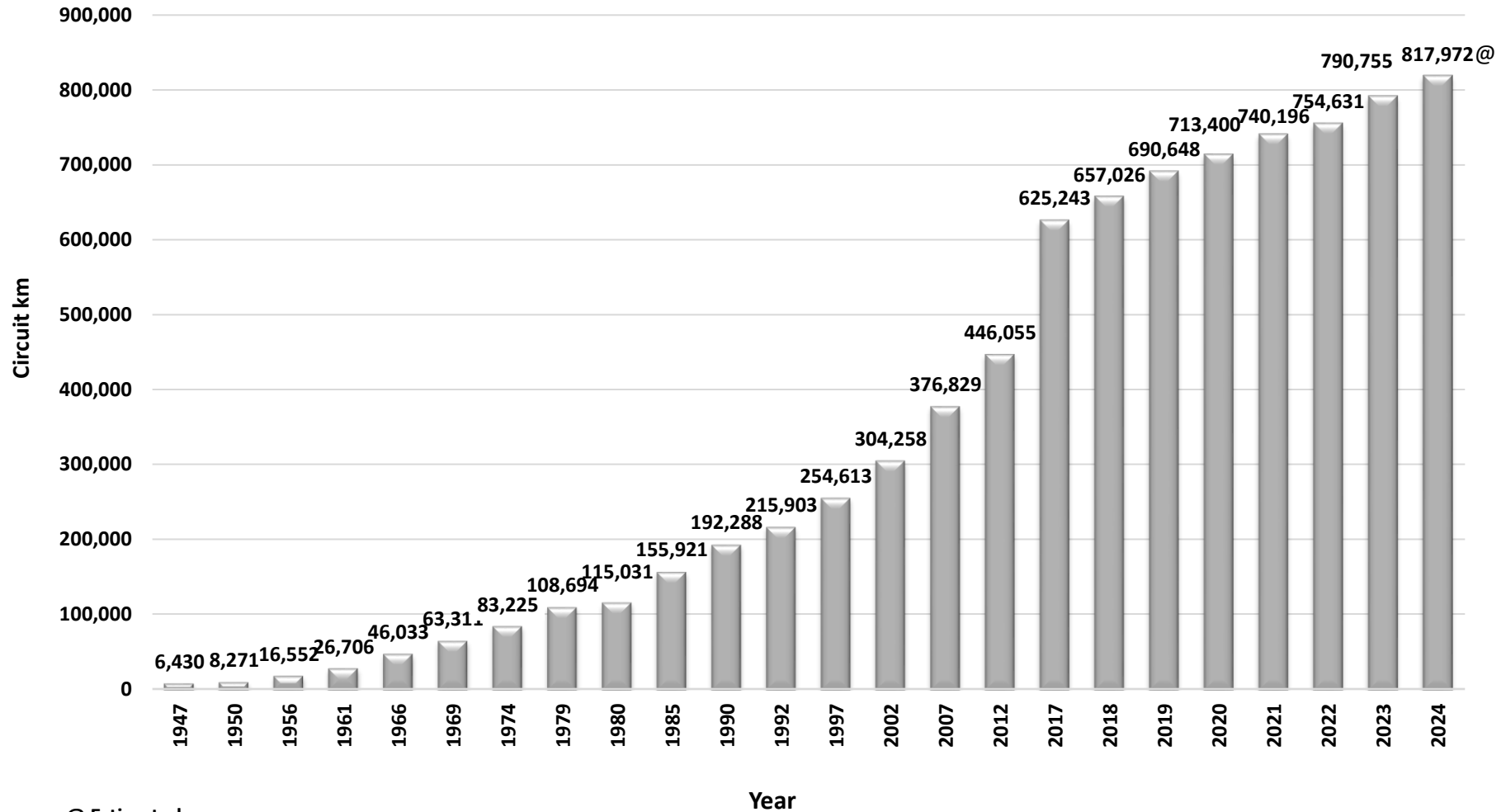
Chart : 1



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

Length of Transmission Lines (66 KV and above)

Chart : 2A

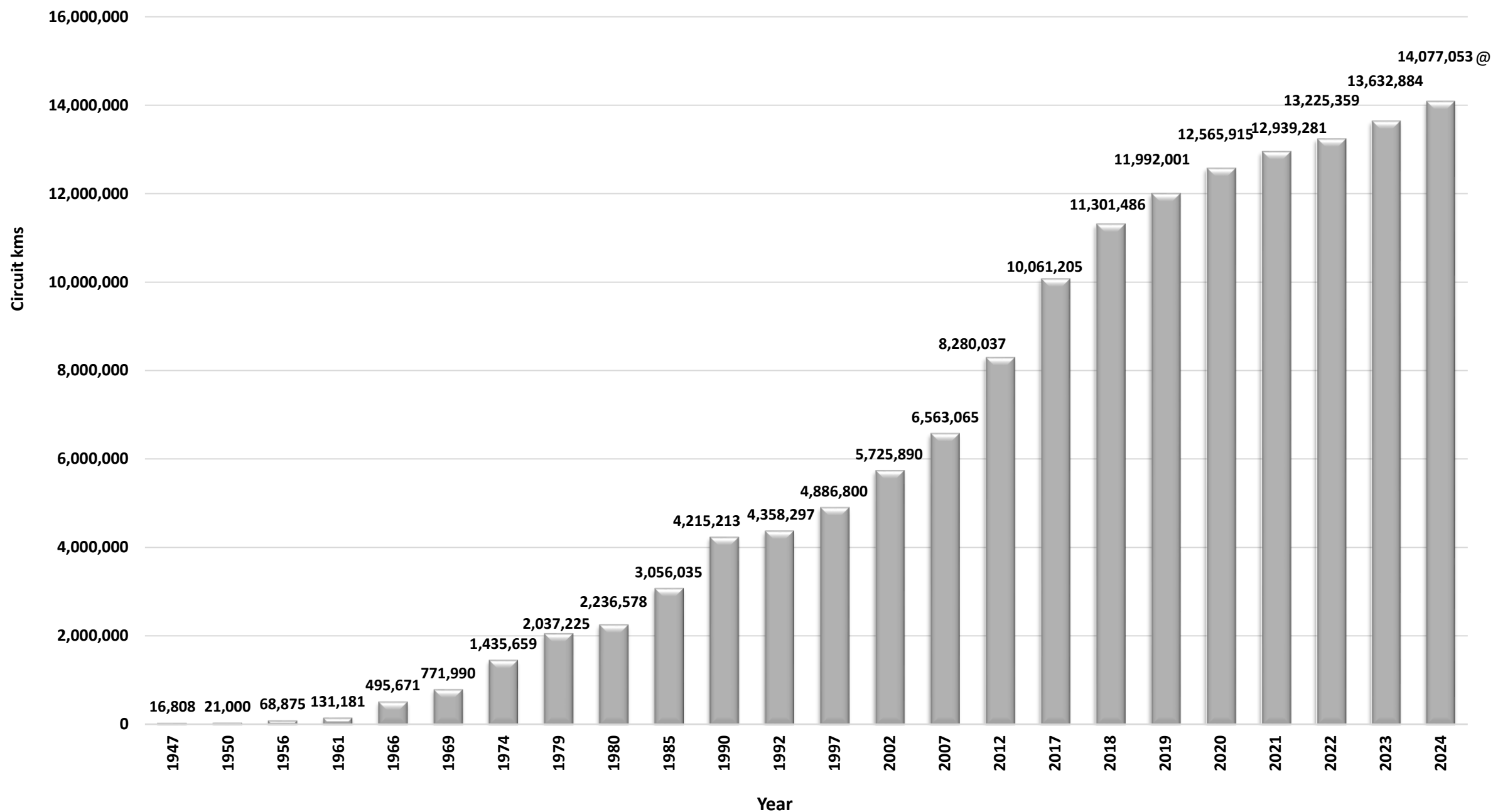


@ Estimated

Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

Chart : 2B

Length of Transmission & Distribution Lines (below 66 kV)

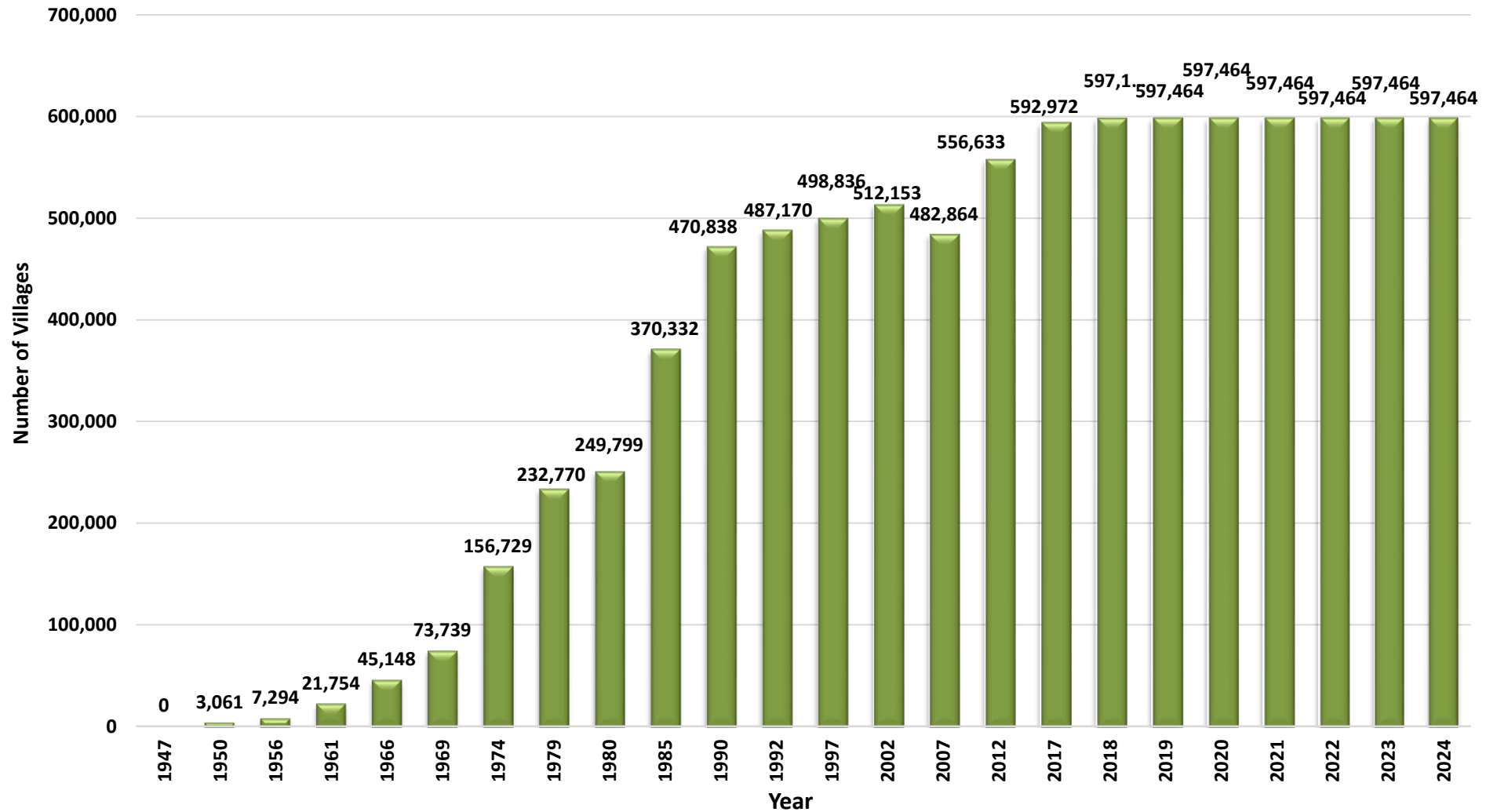


@ Estimated

Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

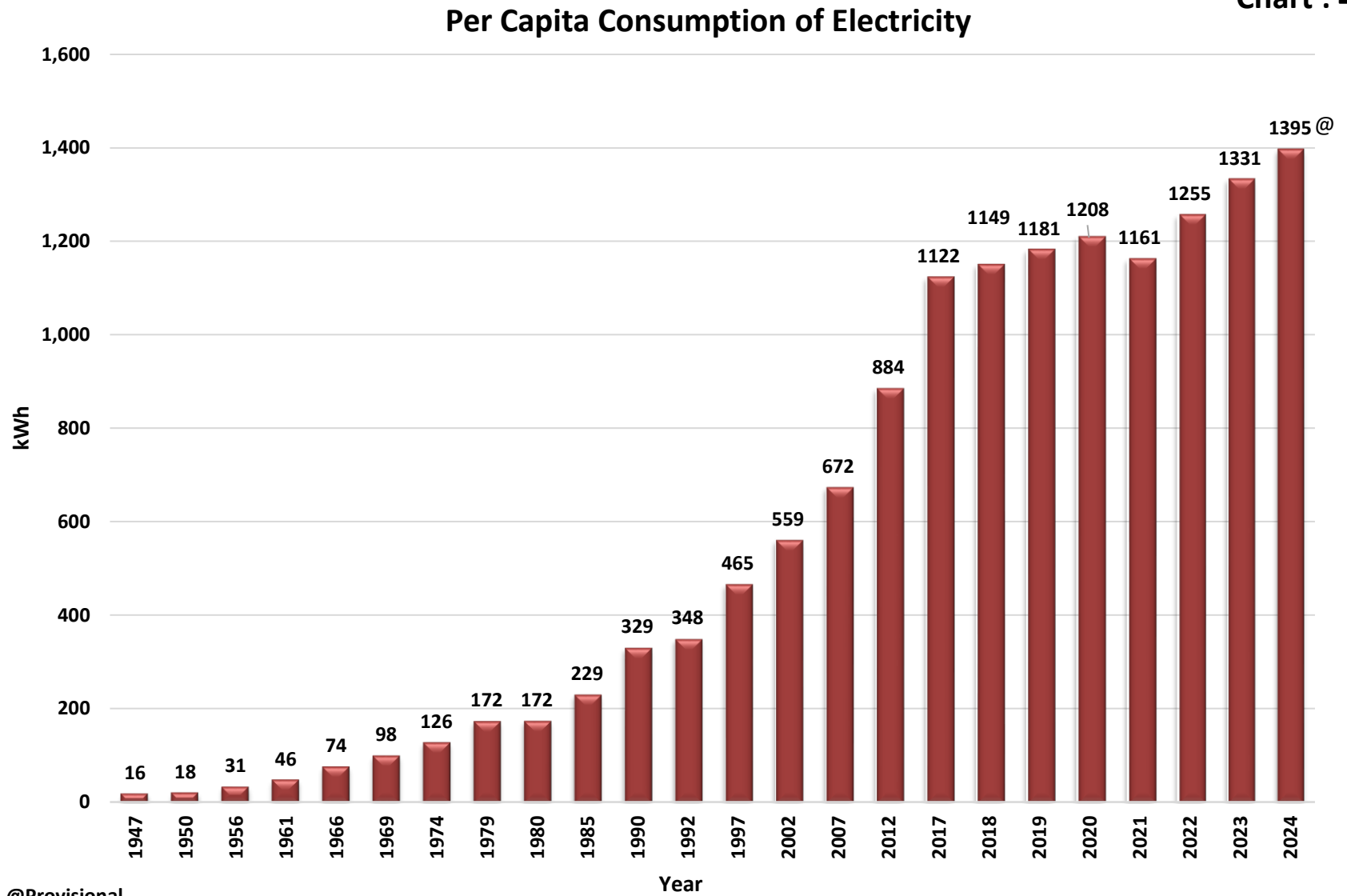
Number of Villages Electrified in the Country

Chart : 3



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

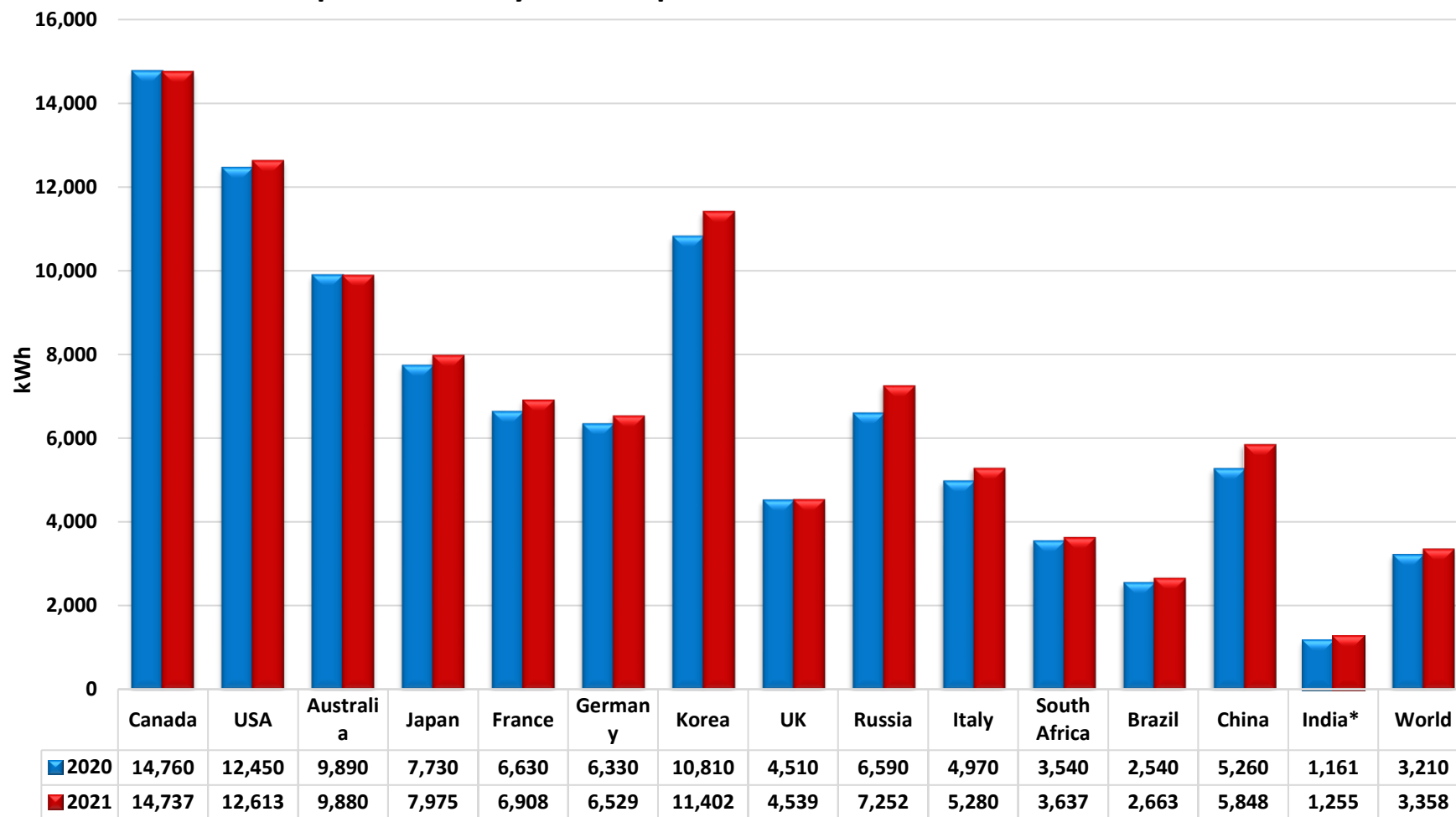
Chart : 4



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

Chart : 5

Per Capita Electricity Consumption in Various Countries in 2020 & 2021



Source : IEA publication 'Key World Energy Statistics 2019 website (other than India)

* Per capita consumption = (gross electrical energy availability / mid year population)

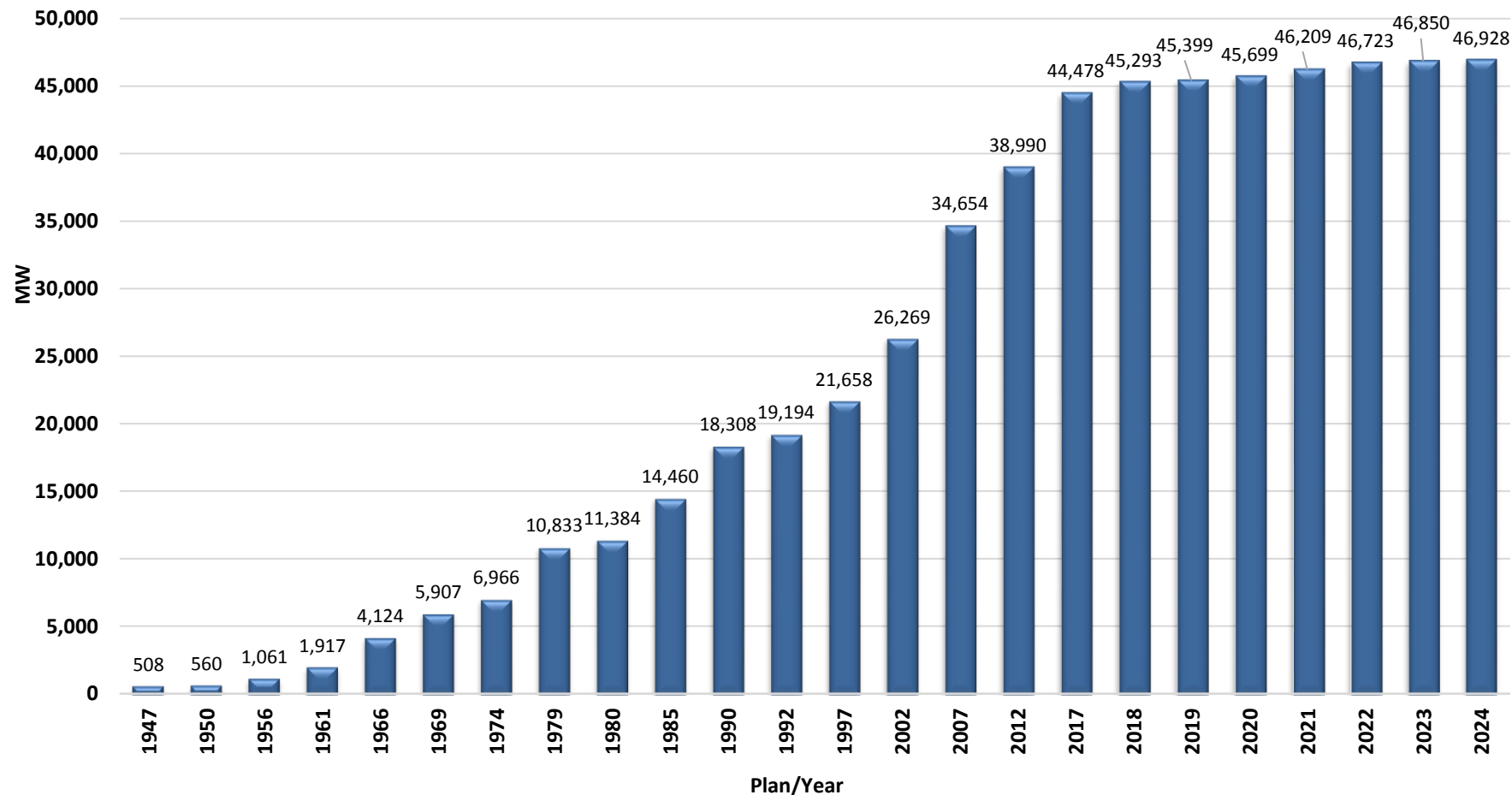
Table 2
Installed Generation Capacity - Mode-wise
(Utilities)

Sl. No.	As on	Thermal				Nuclear	RES			Total
		Coal/Lignite	Gas	Diesel	Total		Hydro	RES (MNRE)	RES Total	
1	31.12.47	756	0	98	854	0	508	0	508	1,362
2	31.12.50	1,004	0	149	1,153	0	560	0	560	1,713
3	31.03.56 (End of 1st Plan)	1,597	0	228	1,825	0	1,061	0	1,061	2,886
4	31.03.61 (End of 2nd Plan)	2,436	0	300	2,736	0	1,917	0	1,917	4,653
5	31.03.66 (End of 3rd Plan)	4,417	134	352	4,903	0	4,124	0	4,124	9,027
6	31.03.69 (End of 3 Annual Plans)	6,640	134	276	7,050	0	5,907	0	5,907	12,957
7	31.03.74 (End of 4th Plan)	8,652	165	241	9,058	640	6,966	0	6,966	16,664
8	31.03.79 (End of 5th Plan)	14,875	168	164	15,207	640	10,833	0	10,833	26,680
9	31.03.80 (End of Annual Plan)	15,991	268	165	16,424	640	11,384	0	11,384	28,448
10	31.03.85 (End of 6th Plan)	26,311	542	177	27,030	1,095	14,460	0	14,460	42,585
11	31.03.90 (End of 7th Plan)	41,237	2,343	165	43,745	1,565	18,308	18	18,326	63,636
12	31.03.92 (End of 2 Annual Plans)	44,791	3,095	168	48,054	1,785	19,194	32	19,226	69,065
13	31.03.97 (End of 8th Plan)	54,154	6,562	294	61,010	2,225	21,658	902	22,560	85,795
14	31.03.02 (End of 9th Plan)	62,131	11,163	1,135	74,429	2,720	26,269	1,628	27,897	105,046
15	31.03.07 (End of 10th Plan)	71,121	13,692	1,202	86,015	3,900	34,654	7,760	42,414	132,329
16	31.03.12 (End of 11th Plan)	112,022	18,381	1,200	131,603	4,780	38,990	24,504	63,494	199,877
17	31.03.17 (End of 12th Plan)	192,163	25,329	838	218,330	6,780	44,478	58,558	103,037	328,146
18	31.03.2018	197,172	24,897	838	222,907	6,780	45,293	70,651	115,945	345,631
19	31.03.2019	200,705	24,937	638	226,279	6,780	45,399	79,412	124,811	357,871
20	31.03.2020	205,135	24,955	510	230,600	6,780	45,699	88,255	133,955	371,334
21	31.03.2021	209,295	24,924	510	234,729	6,780	46,209	95,803	142,012	383,521
22	31.03.2022	210,700	24,900	510	236,109	6,780	46,723	109,885	156,608	399,497
23	31.03.2023	211,855	24,824	589	237,269	6,780	46,850	125,160	172,010	416,059
24	31.03.2024	217,589	25,038	589	243,217	8,180	46,928	143,645	190,573	441,970

RES:-Renewable Energy Sources includes Hydro capacity of 25.00 MW and below as reported by MNRE.

Chart : 6

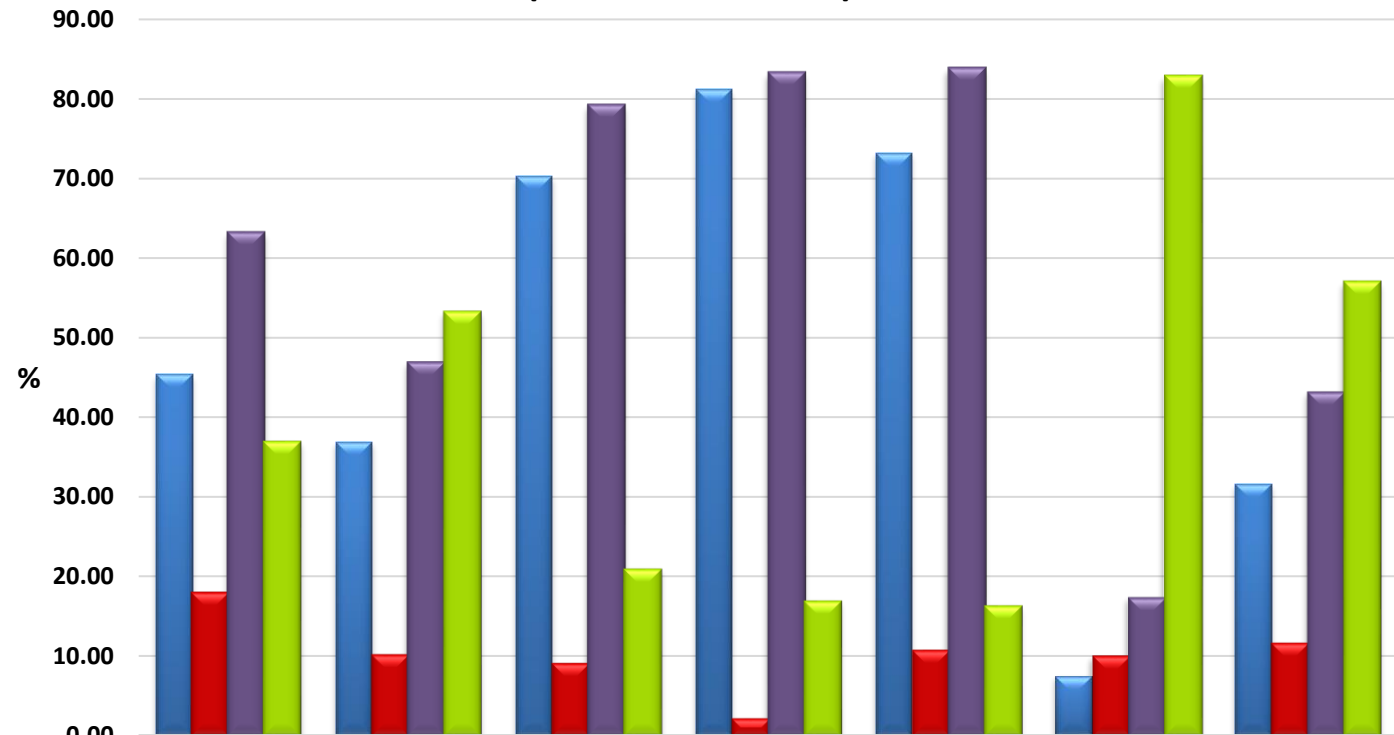
Installed Generation Capacity Hydro Electric Power Stations (25 MW & above)



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

**Hydro Electric Potential Development - Basin-wise
Installed Capacity above 25 MW
% wise (As on 31.03.2024)**

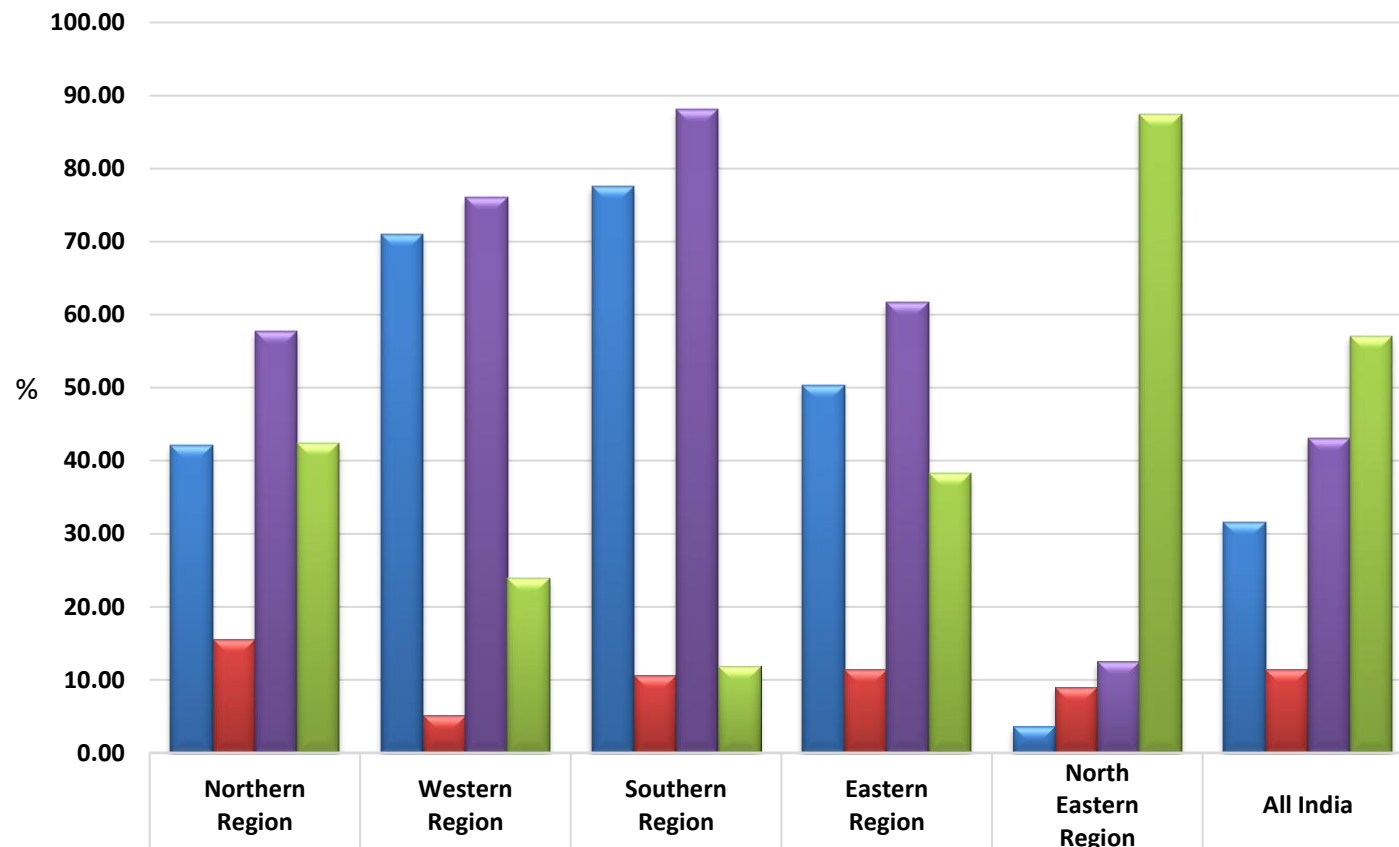
Chart : 6A



	Indus	Ganga	Central Indian Rivers	West Flowing Rivers	East Flowing Rivers	Brahmaputra Basin	All India
% Capacity Developed /Under Operation	45.34	36.86	70.24	81.18	73.2	7.47	31.62
% Cap. Under Construction	17.8	9.98	8.89	2.00	10.56	9.81	11.44
% Cap. Dev. + Under Con.	63.14	46.84	79.13	83.18	83.76	17.28	43.06
% Balance Potential	36.86	53.16	20.87	16.82	16.24	82.72	56.94

Hydro Electric Potential Development - Region-wise Installed Capacity above 25 MW % wise (As on 31.03.2024)

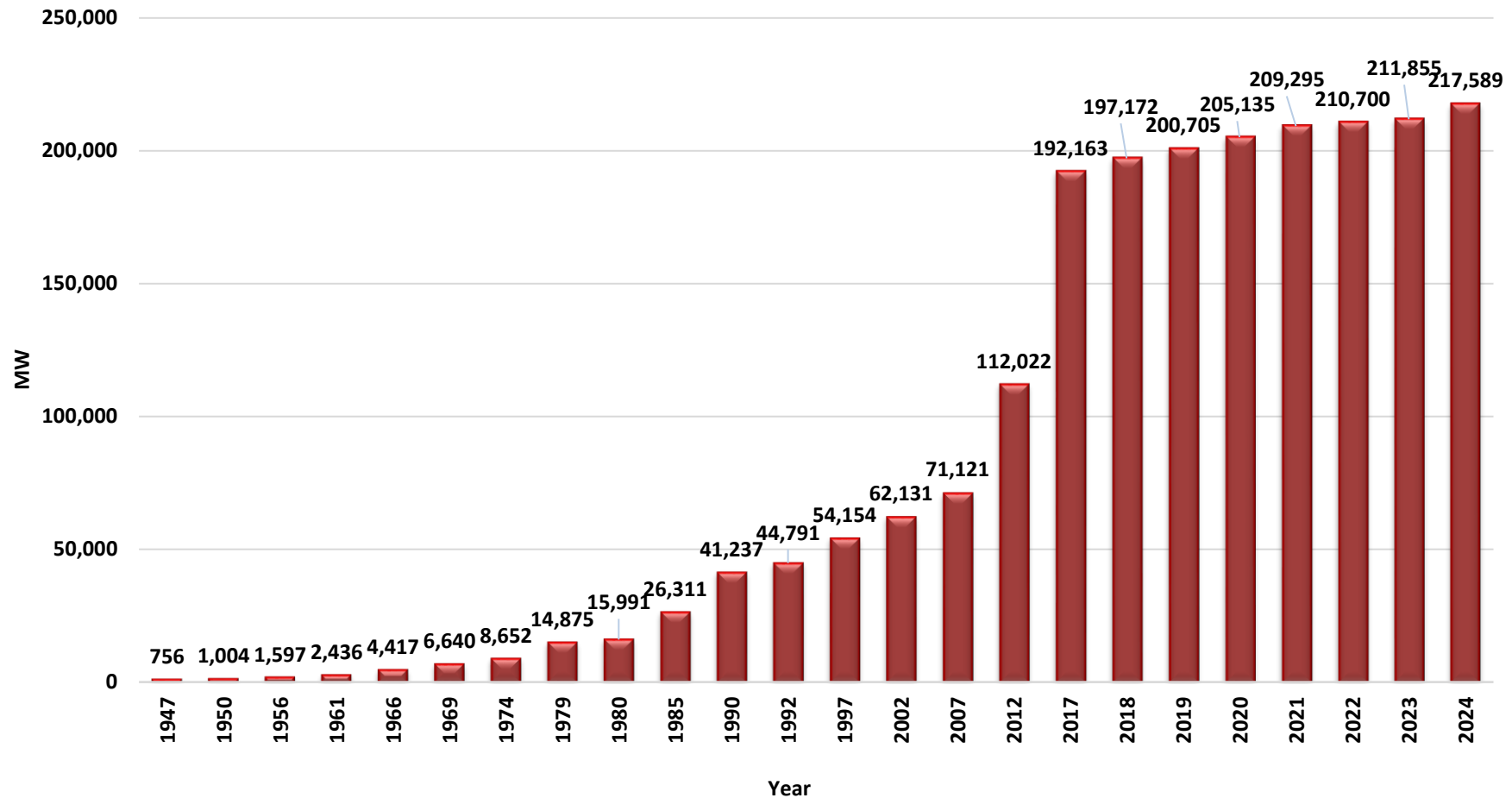
Chart : 6B



■ % Capacity Developed /Under Operation	42.10	70.96	77.50	50.30	3.62	31.62
■ %Cap. Under Construction	15.55	5.11	10.58	11.44	8.94	11.39
■ %Cap. Dev. +Under Construction	57.65	76.07	88.08	61.74	12.56	43.01
■ % Capacity yet to be Developed	42.35	23.93	11.92	38.26	87.44	56.99

Installed Generation Capacity Coal/ Lignite-based Plants

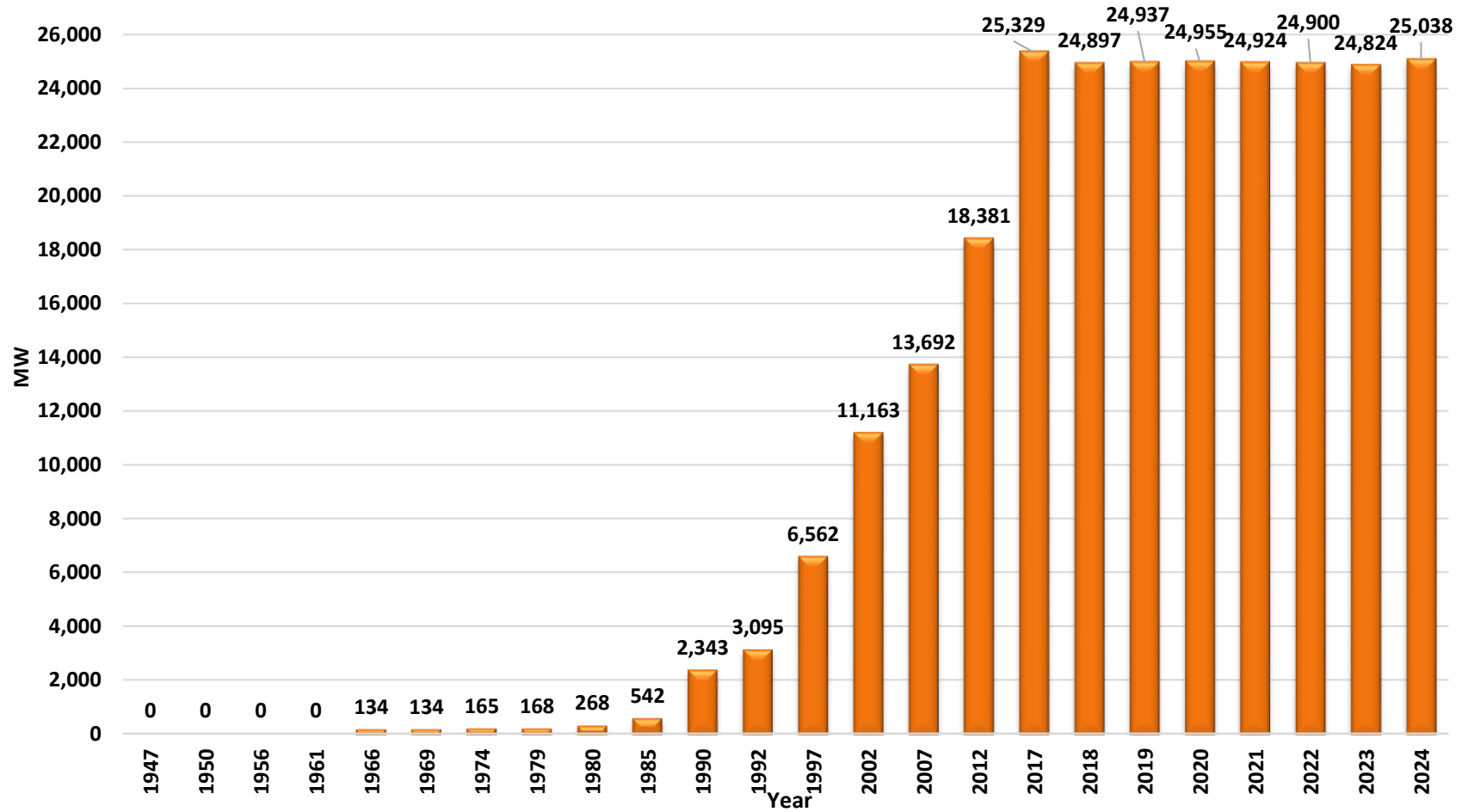
Chart : 7A



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

Installed Generation Capacity Gas/ Liquid-based Plants

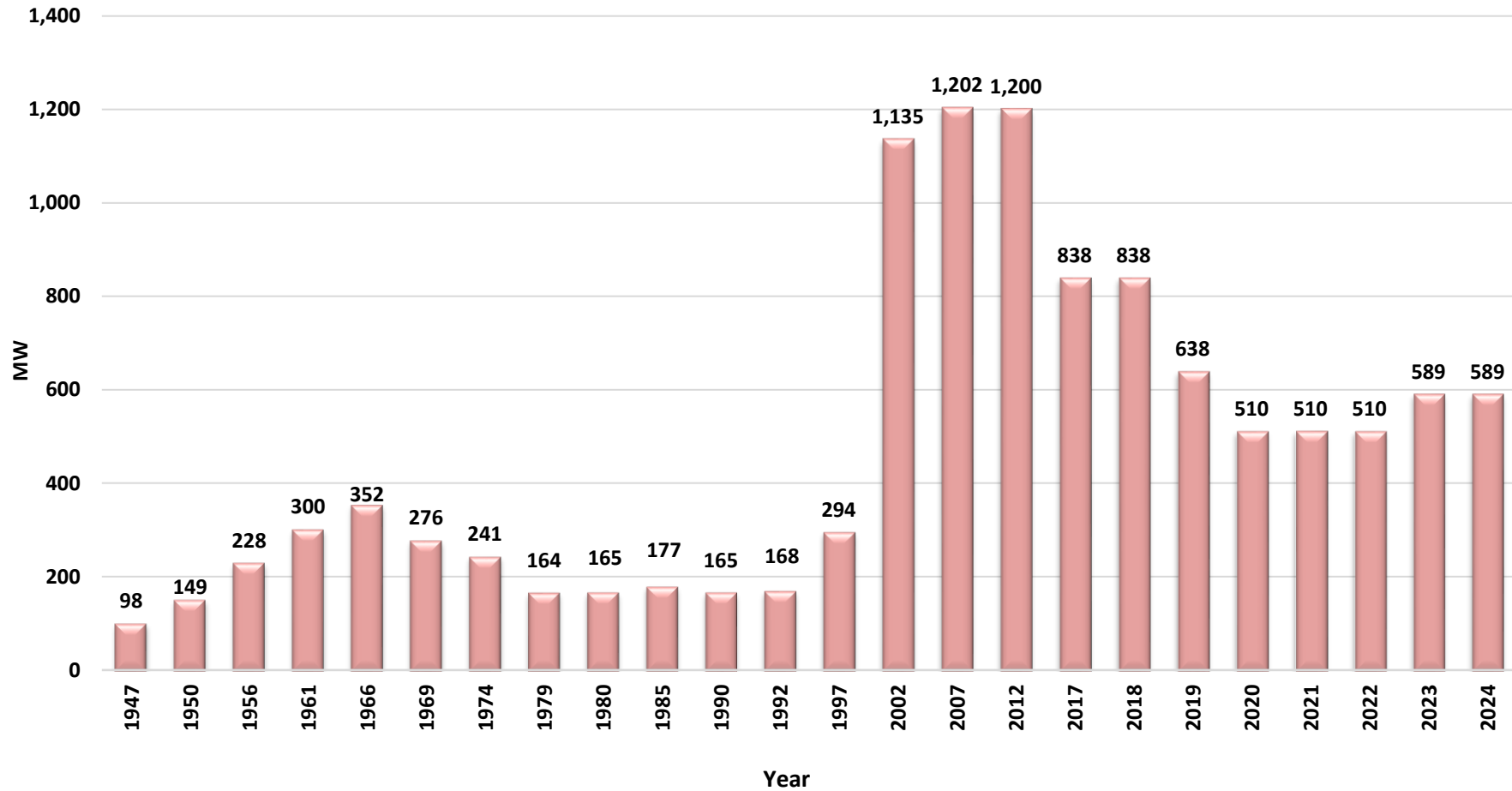
Chart : 7B



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

Installed Generation Capacity Diesel-based Plants

Chart : 7C



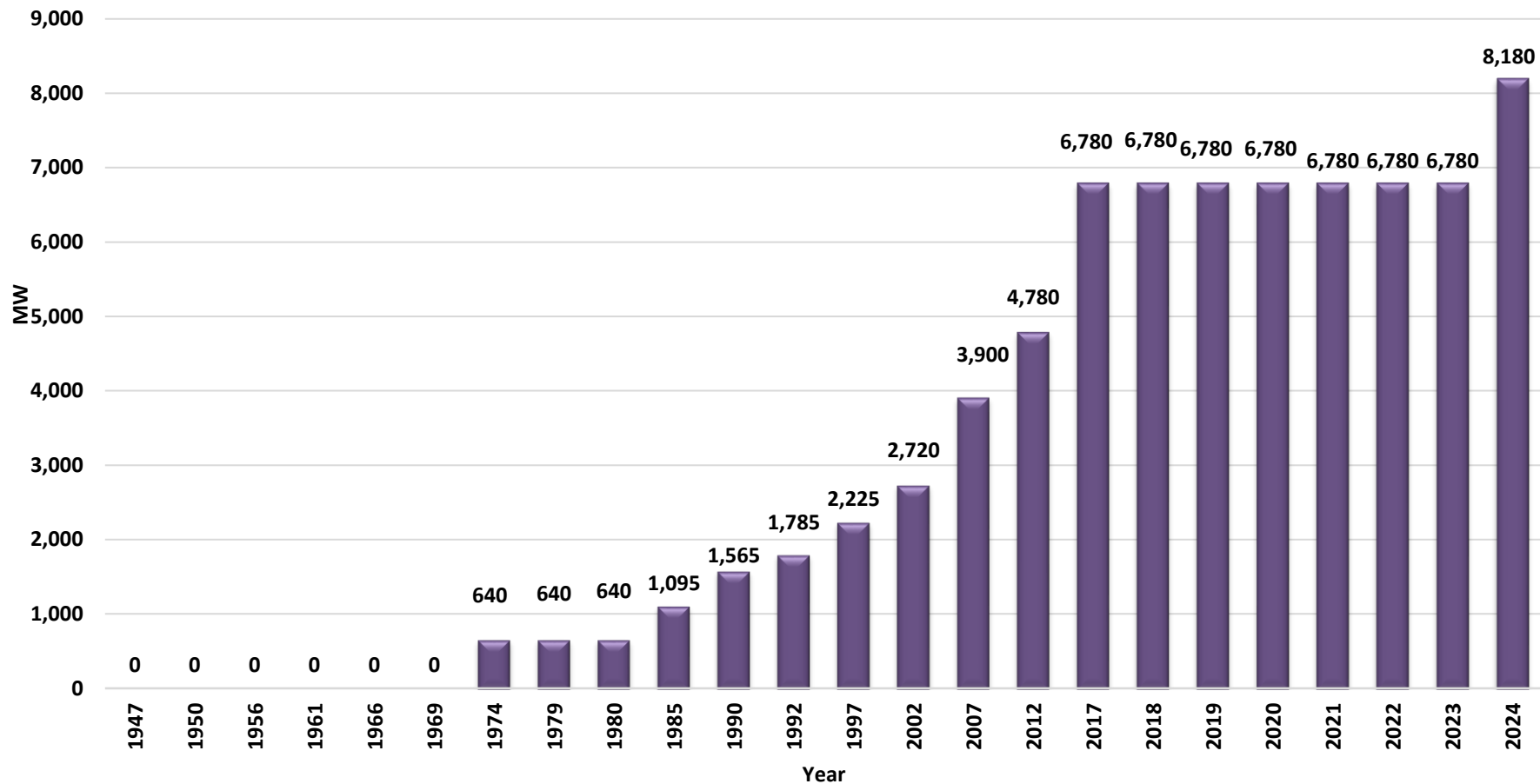
Note: 1. Figures for the years 1947 & 1950 are as on 31st December.

2. Figures for the year 1955-56 & onward are as on 31st March.

3. Diesel based Capacity includes capacity of plants having capacity 25 MW & above and Capacity of DG sets group located in Lakshadweep and Andaman & Nicobar Islands

Chart : 8

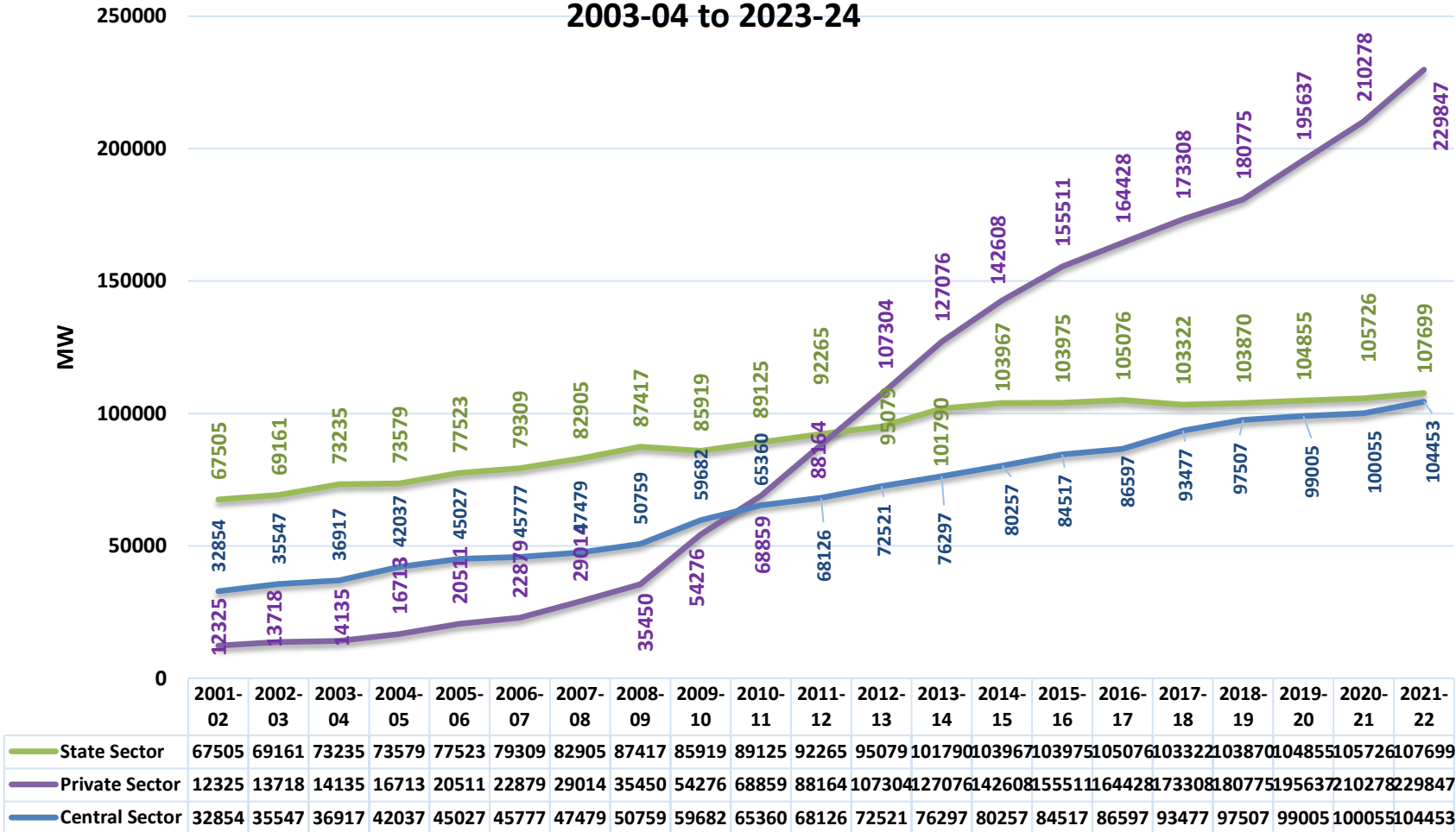
Installed Generation Capacity Nuclear-based Plants



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
2. Figures for the year 1955-56 & onward are as on 31st March.

Installed Generation Capacity - Sector-wise(MW)
2003-04 to 2023-24

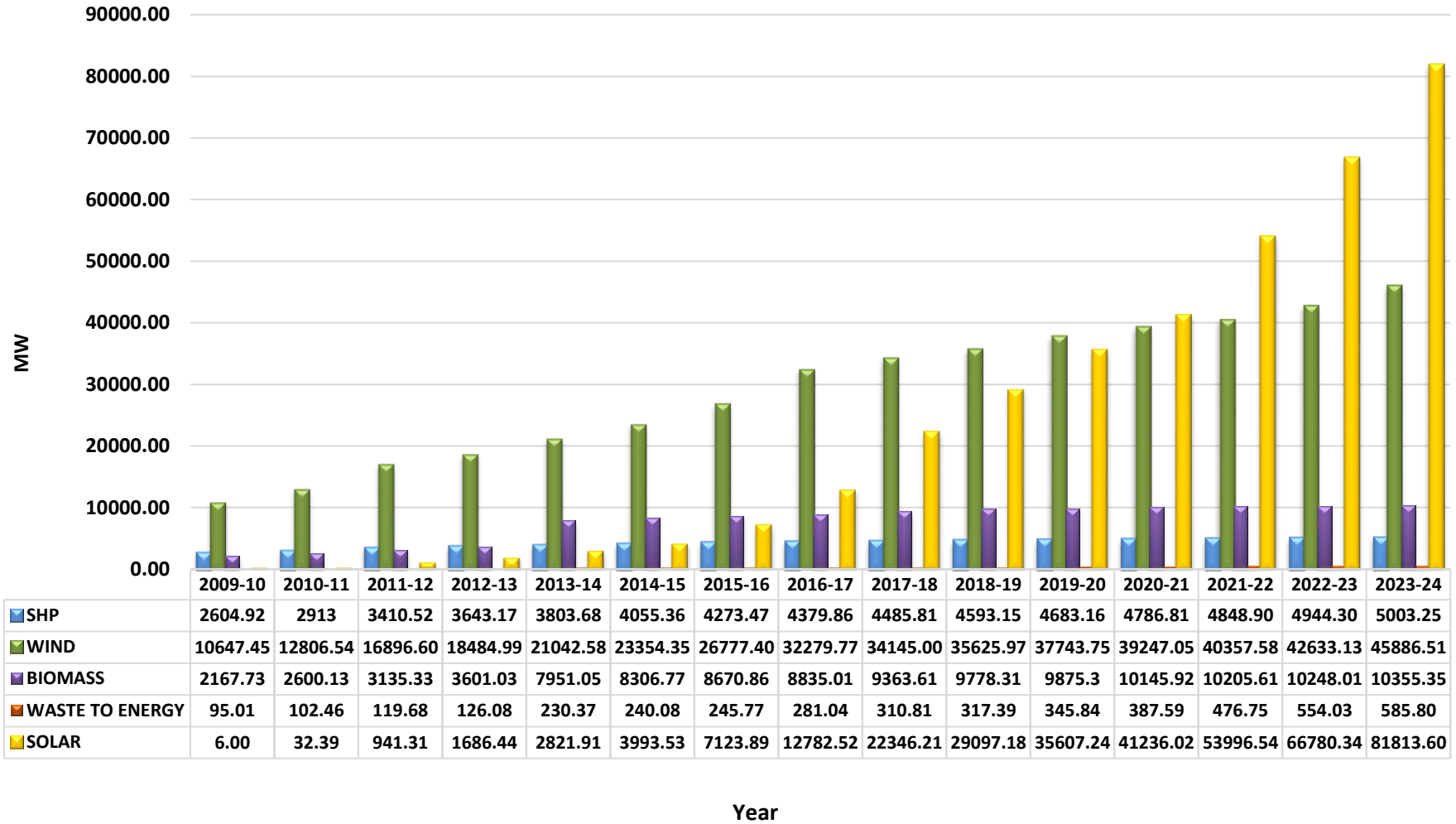
Chart : 8A



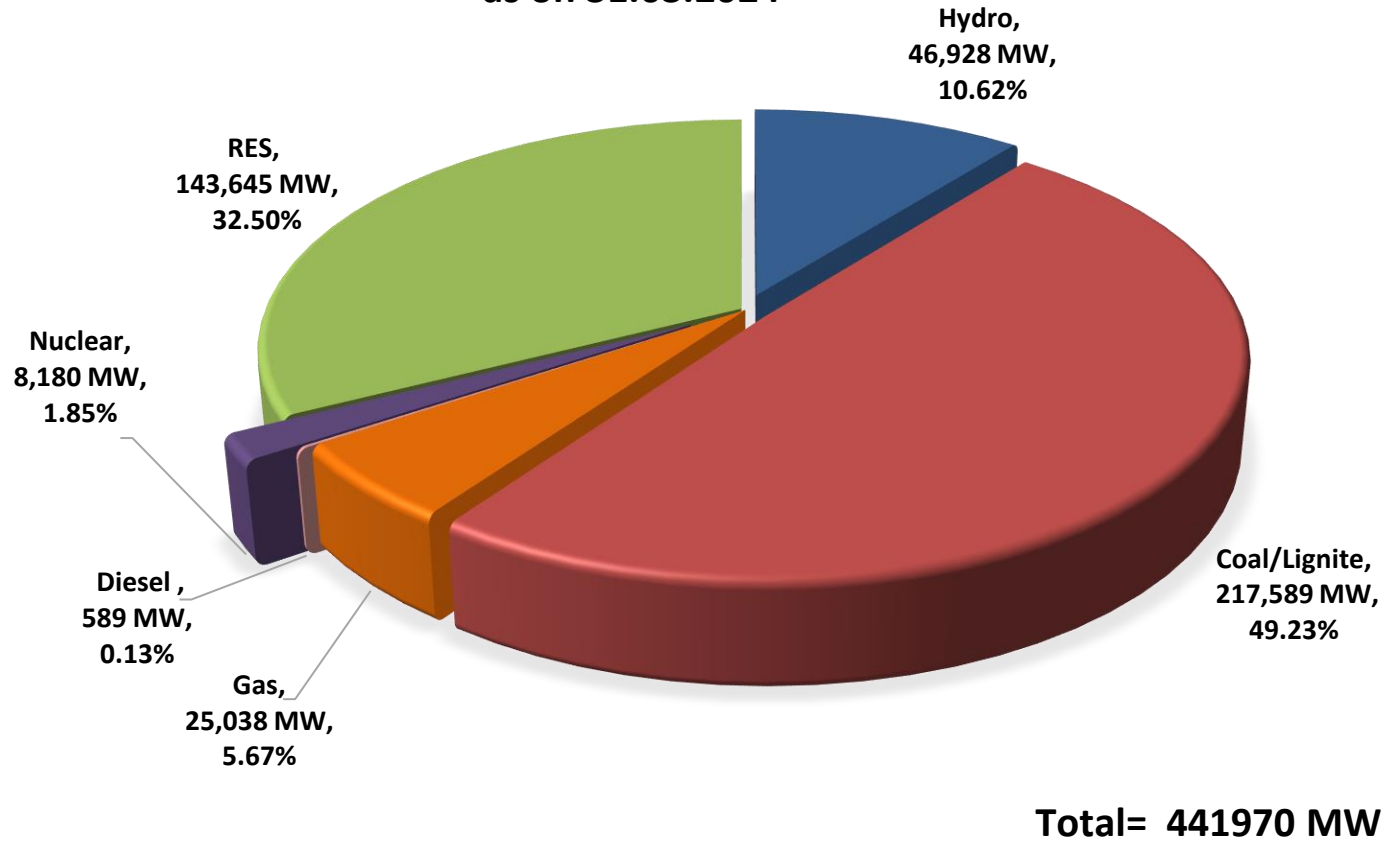
Note: DVC & RRMR Installed Capacity is considered under Central Sector

Installed Generation Capacity of R.E.S. - Mode-wise/Year-wise during last 15 years

Chart :8 B



**All India Installed Generation capacity
(Utilities)
as on 31.03.2024**



■ Hydro ■ Coal/Lignite ■ Gas ■ Diesel ■ Nuclear ■ RES

All India Installed Generation Capacity (Utilities) (As on 31.03.2023)

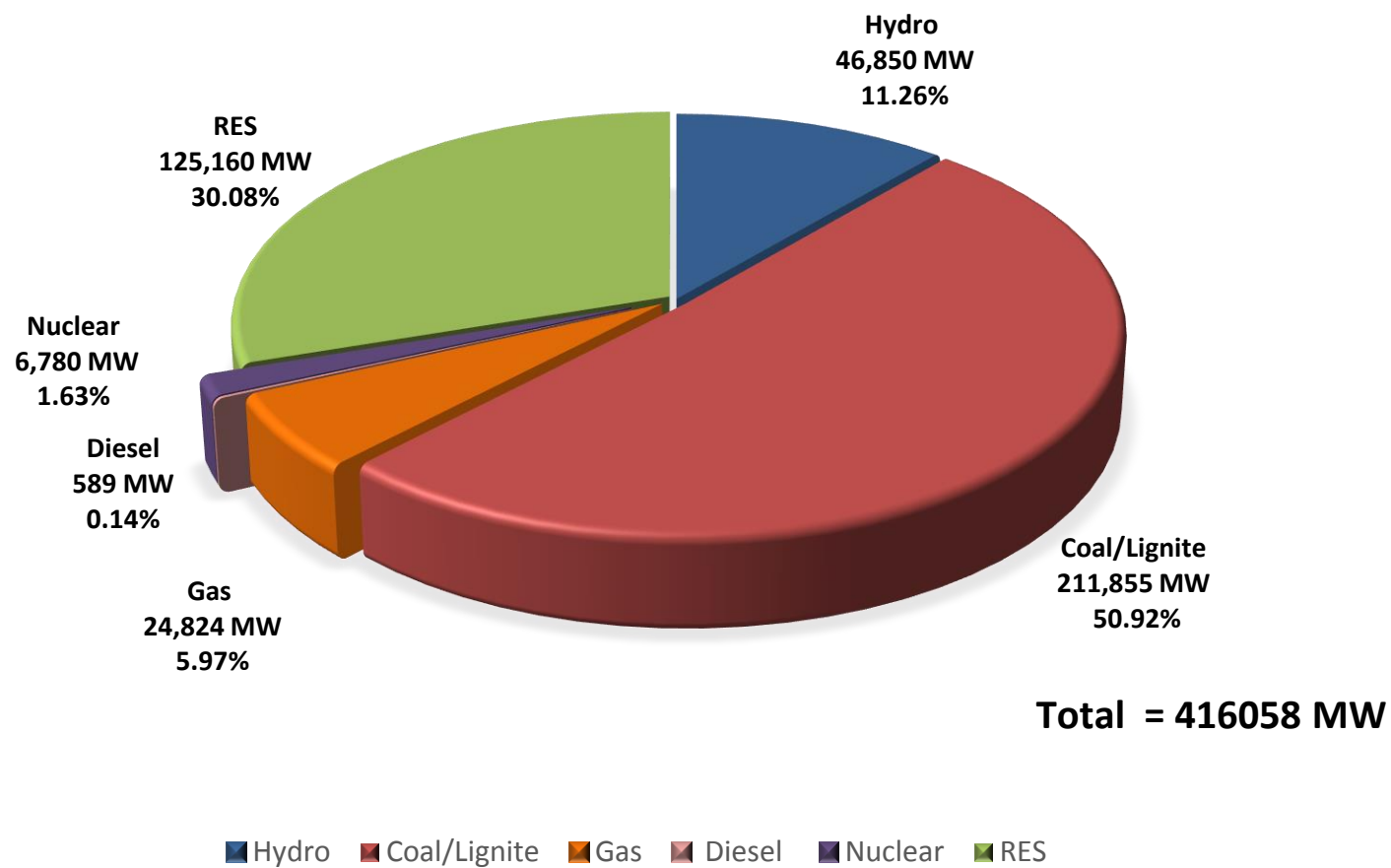


Table 3
Gross Electricity Generation in India- Mode-wise
(Utilities)

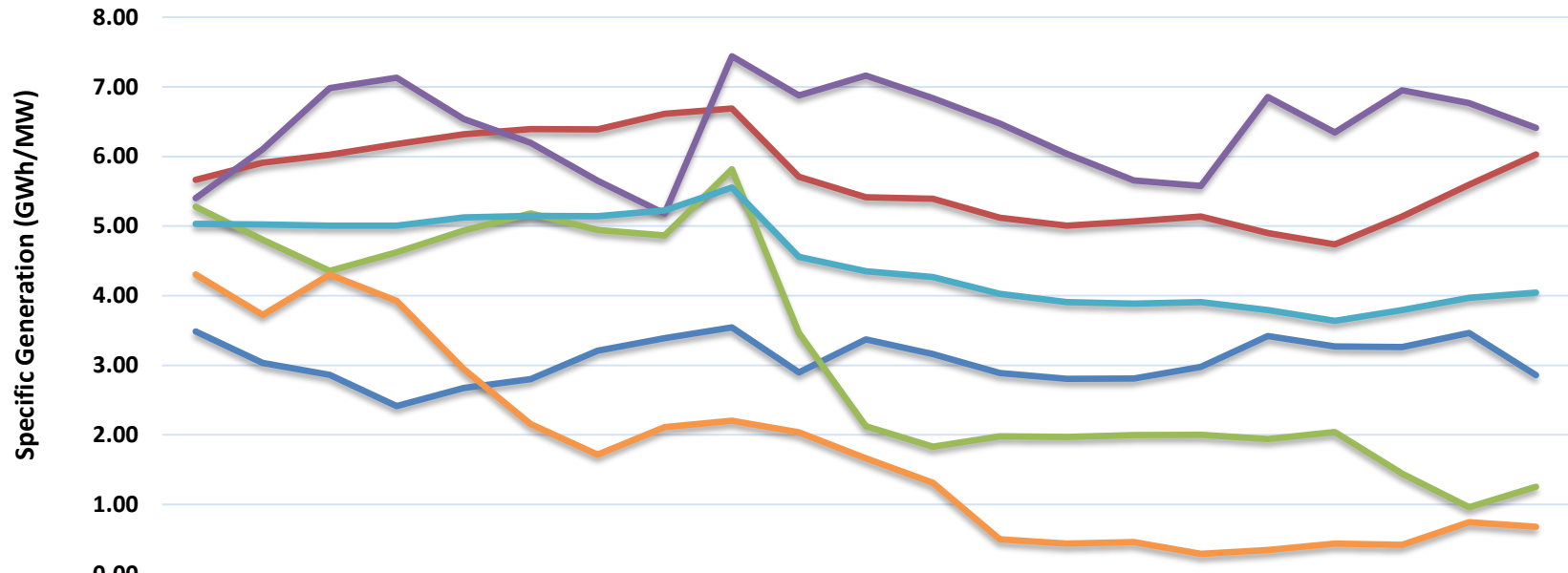
SL. No	During financial year ending with	Thermal				Hydro	Nuclear	RES	Total
		Coal/ Lignite	Gas	Diesel	Total				
1	1947	1,733	0	144	1,877	2,195	0	0	4,073
2	1950	2,587	0	200	2,787	2,519	0	0	5,106
3	1955-56 (End of the 1st Plan)	5,367	0	233	5,600	4,295	0	0	9,662
4	1960-61 (End of the 2nd Plan)	9,100	0	368	9,468	7,837	0	0	16,937
5	1965-66(End of the 3rd Plan)	17,765	69	324	18,158	15,225	0	0	32,990
6	1968-69(End of the 3 Annual Plans)	26,711	124	194	27,029	20,723	0	0	47,434
7	1973-74(End of the 4th Plan)	34,853	343	125	35,321	28,972	2,396	0	66,689
8	1978-79(End of the 5th Plan)	52,024	515	55	52,594	47,159	2,770	0	102,523
9	1979-80(End of the Annual Plan)	55,720	500	53	56,273	45,478	2,876	0	104,627
10	1984-85 (End of the 6th Plan)	96,957	1,834	45	98,836	53,948	4,075	0	156,859
11	1989-90 (End of the 7th Plan)	172,643	5,962	85	178,690	62,116	4,625	6	245,438
12	1991-92(End of the 2 Annual Plans)	197,163	11,450	95	208,708	72,757	5,525	38	287,029
13	1996-97(End of the 8th Plan)	289,378	26,985	679	317,042	68,901	9,071	876	395,889
14	2001-02(End of the 9th Plan)	370,884	47,099	4,317	422,300	73,579	19,475	2,085	517,439
15	2006-07(End of the 10th Plan)	461,794	64,157	2,539	528,490	113,502	18,802	9,860	670,654
16	2011-12(End of the 11th Plan)	612,497	93,281	2,649	708,427	130,511	32,287	51,226	922,451
17	2016-17(End of the 12th Plan)	944,022	49,094	401	993,516	122,378	37,916	81,548	1,235,358
18	2017-18	986,591	50,208	348	1,037,146	126,123	38,346	101,839	1,303,455
19	2018-19	1,022,265	49,834	215	1,072,314	134,894	37,813	126,759	1,371,779
20	2019-20	994,197	48,443	199	1,042,838	155,769	46,472	138,337	1,383,417
21	2020-21	981,443	50,944	224	1,032,611	150,300	43,029	147,248	1,373,187
22	2021-22	1,078,581	36,016	214	1,114,811	151,627	47,112	170,912	1,484,463
23	2022-23	1,182,096	23,885	409	1,206,390	162,099	45,861	203,555	1,617,904
24	2023-24	1,294,852	31,296	401	1,326,549	134,054	47,937	225,835	1,734,375

Note: * Provisional

1. RES Generation upto 2013-2014 as per normative generation.

2. RES Generation during 2014-2015 is as per actual generation received from utilities.

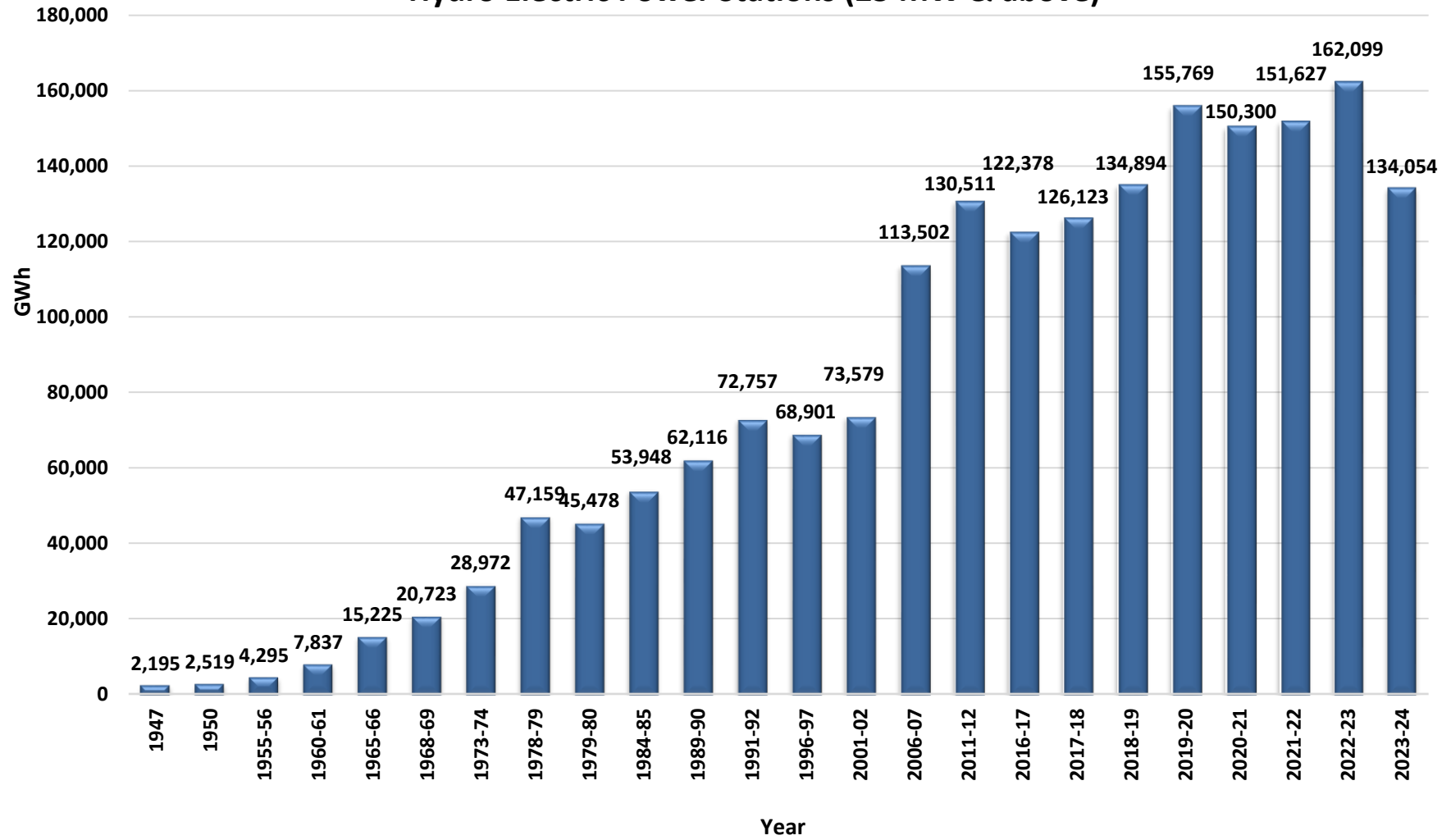
Specific Generation by All India Power Stations Mode-wise (Utilities) 1999-2000 to 2023-24



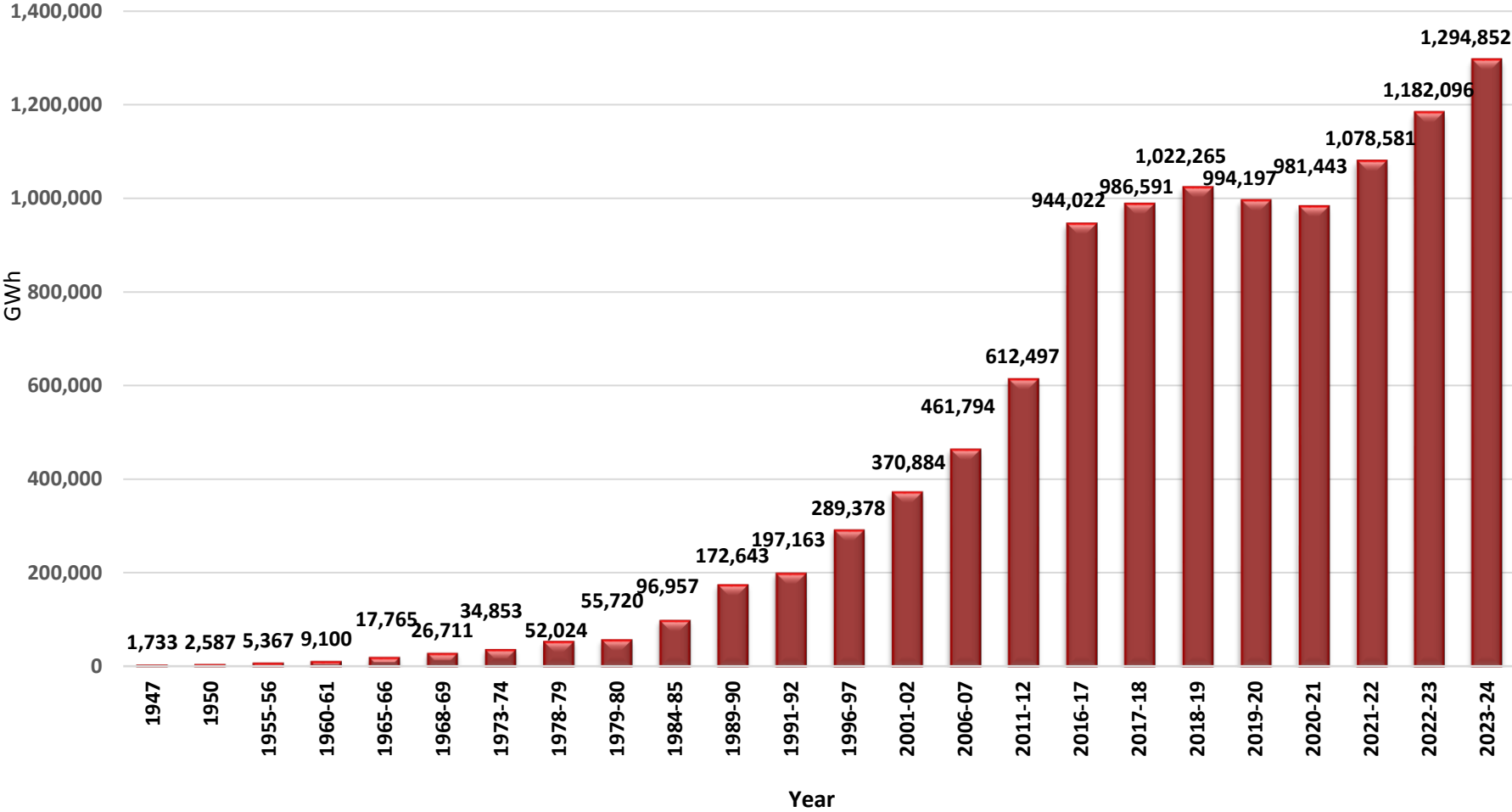
	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Hydro	3.49	3.03	2.86	2.41	2.67	2.80	3.21	3.39	3.54	2.90	3.37	3.16	2.89	2.80	2.81	2.97	3.42	3.27	3.26	3.46	2.86
Coal/Lignite	5.66	5.91	6.02	6.18	6.32	6.39	6.39	6.61	6.69	5.71	5.41	5.39	5.12	5.00	5.07	5.14	4.90	4.74	5.14	5.59	6.03
Gas/Liquid	5.28	4.80	4.36	4.62	4.94	5.18	4.94	4.86	5.82	3.46	2.13	1.83	1.98	1.97	2.00	2.00	1.94	2.04	1.45	0.96	1.26
Nuclear	5.40	6.10	6.98	7.13	6.54	6.20	5.65	5.18	7.44	6.88	7.16	6.84	6.47	6.04	5.66	5.58	6.85	6.35	6.95	6.76	6.41
Diesel	4.30	3.72	4.30	3.93	2.95	2.16	1.72	2.11	2.20	2.04	1.66	1.31	0.50	0.44	0.46	0.29	0.35	0.44	0.42	0.74	0.68
All Types	5.03	5.02	5.01	5.00	5.12	5.14	5.14	5.23	5.55	4.56	4.35	4.27	4.03	3.91	3.89	3.91	3.79	3.64	3.79	3.97	4.04

Years

Electricity Generation Hydro Electric Power Stations (25 MW & above)

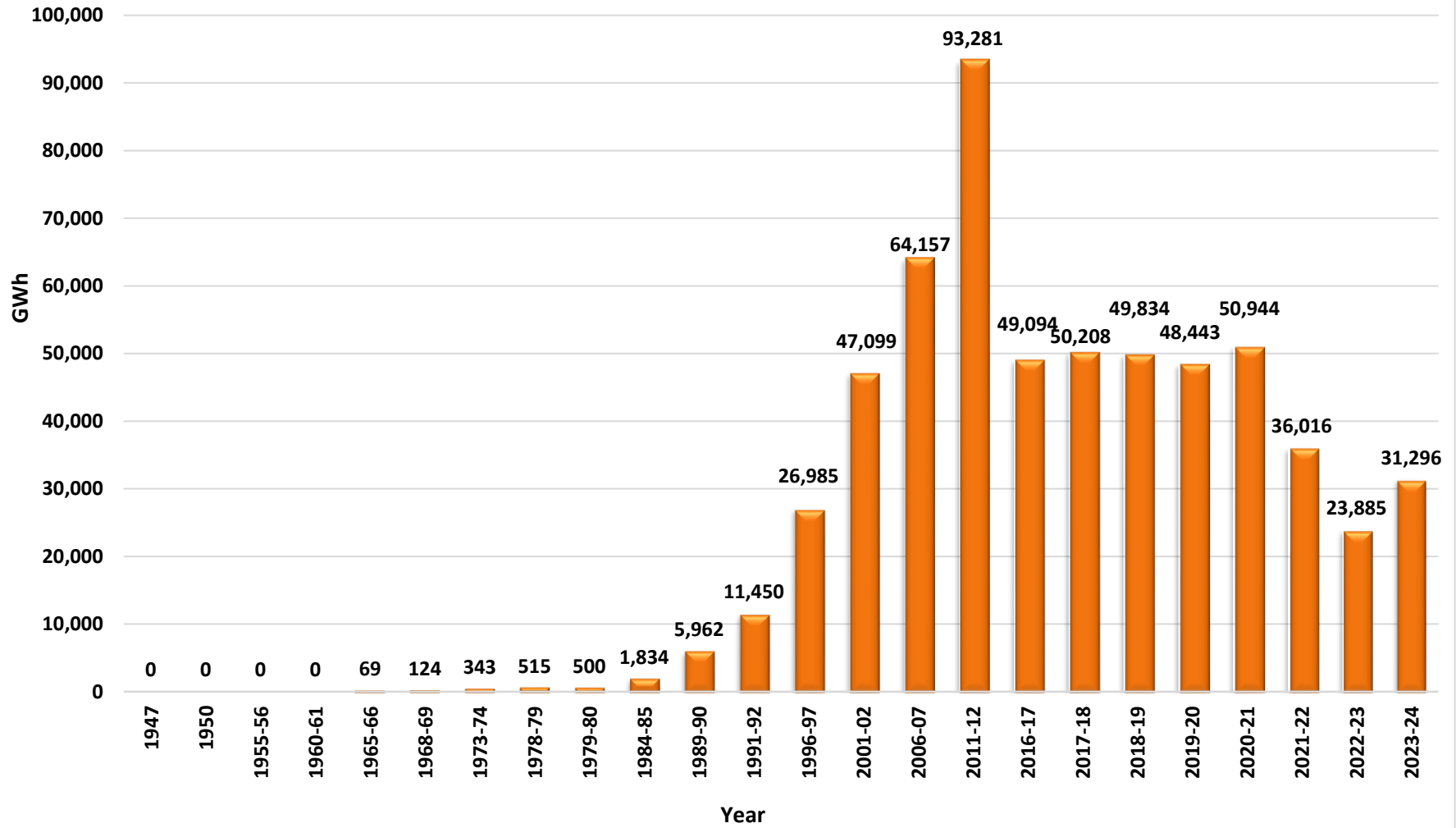


Electricity Generation Coal / Lignite-based Power Plants

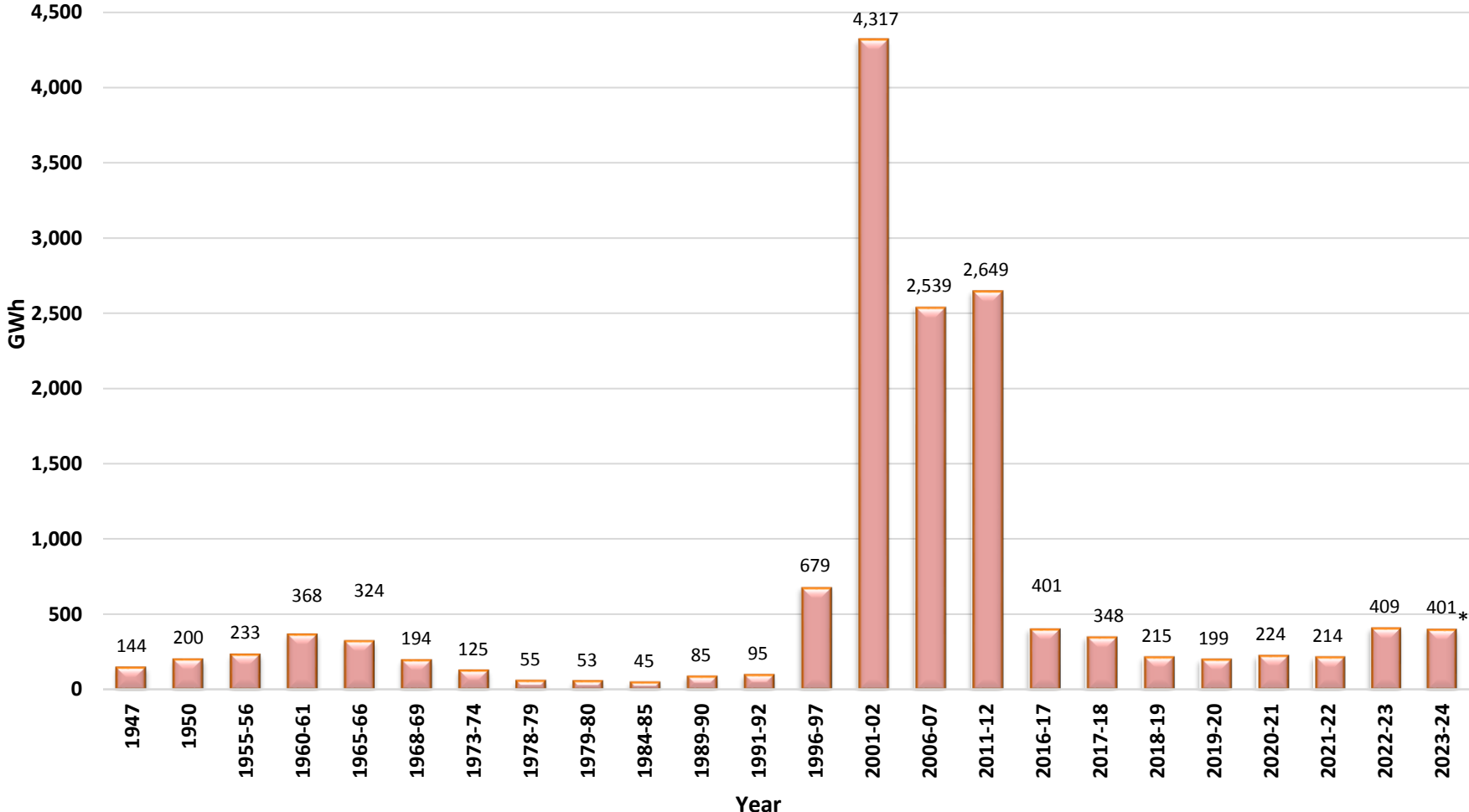


Electricity Generation Gas/ Liquid Fuel-based Power Plants

Chart : 12B



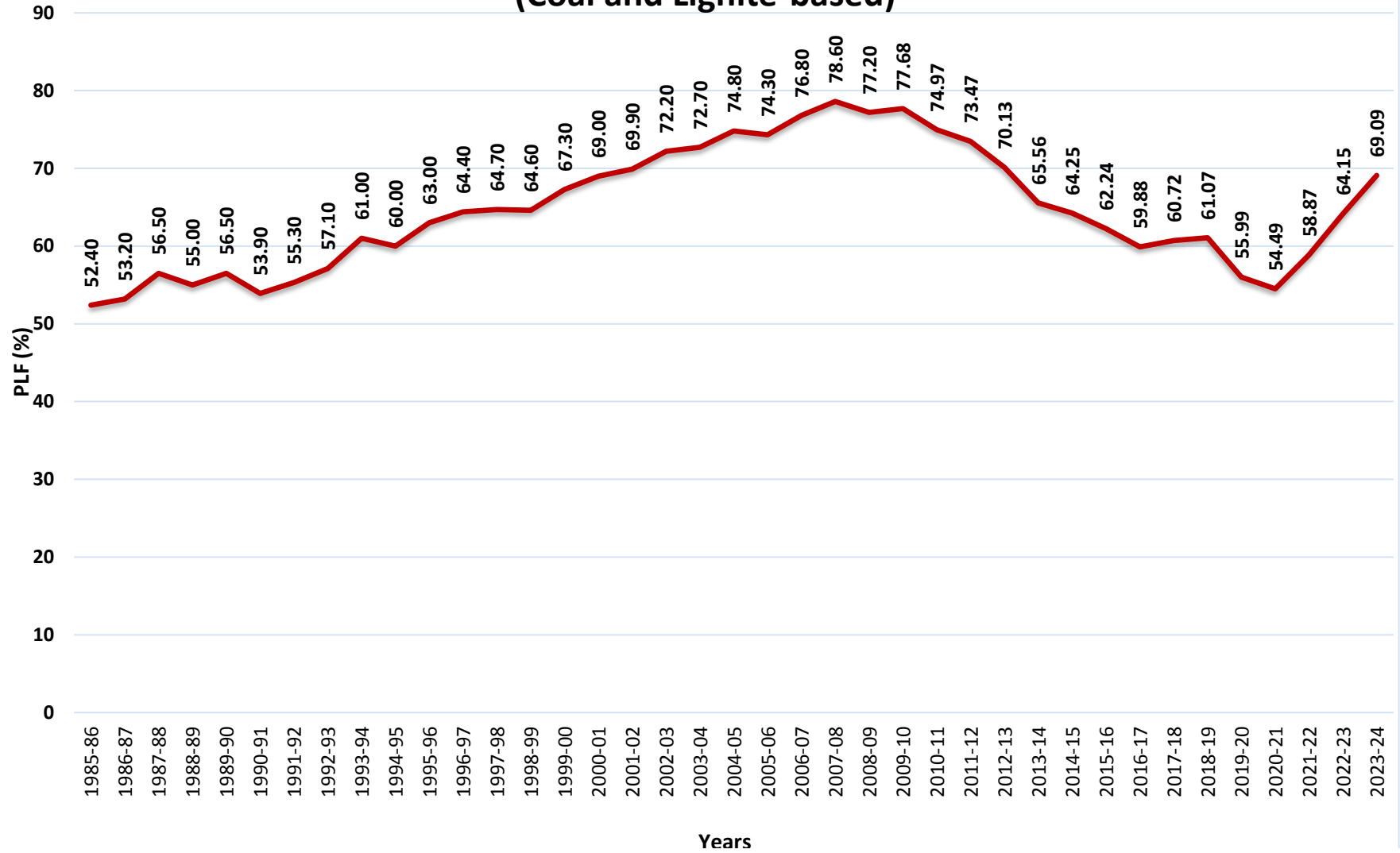
Electricity Generation Diesel-based Power Plants



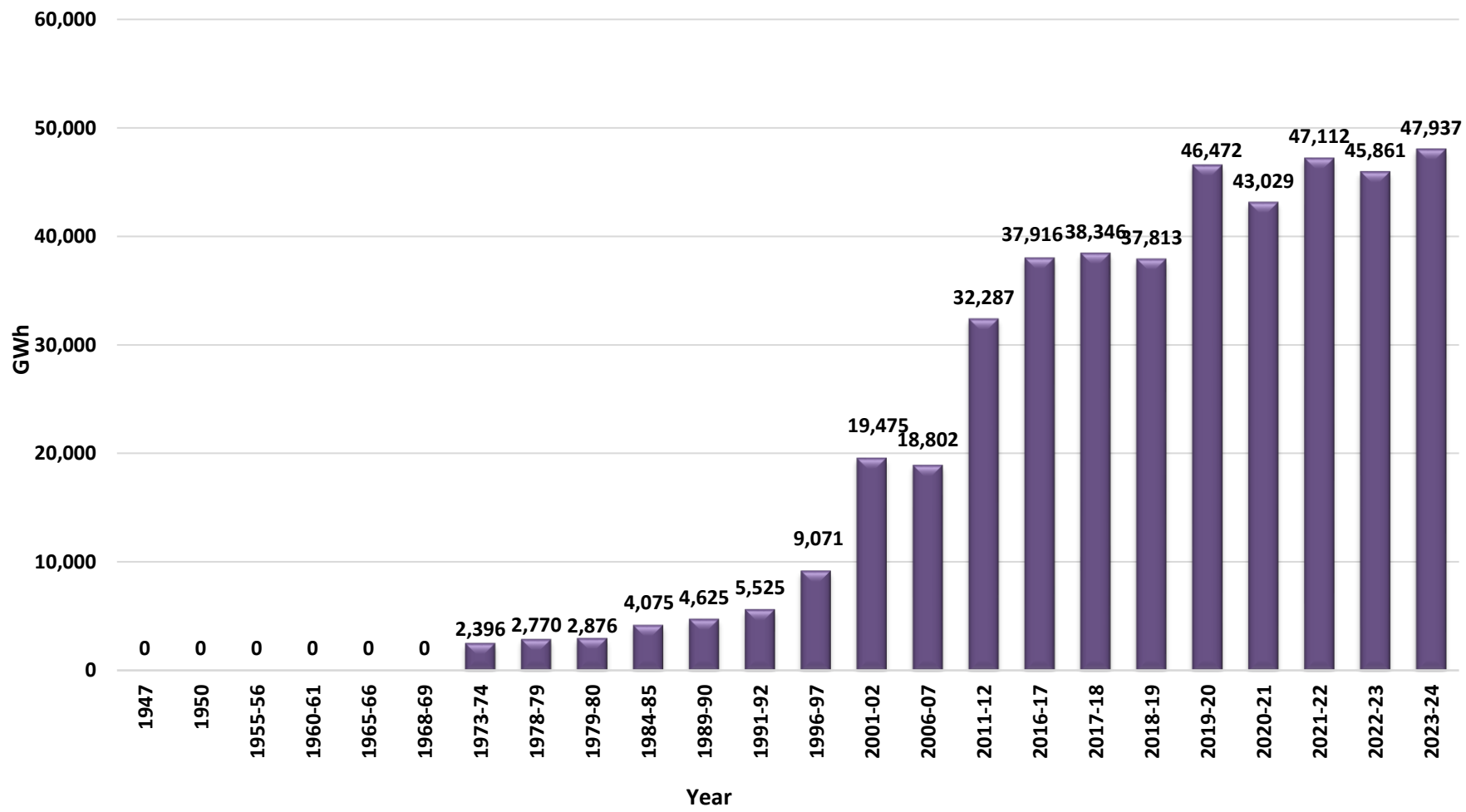
Note: Generation included from Diesel based plants (25 MW & above capacity) generation & generation from DG sets group located in Lakshadweep and Andaman & Nicobar Islands

* Provisional

All India PLF (%) of Thermal Power Stations (Coal and Lignite-based)



Electricity Generation Nuclear-based Power Plants



All India Electricity Generation (Utilities)

Chart : 15

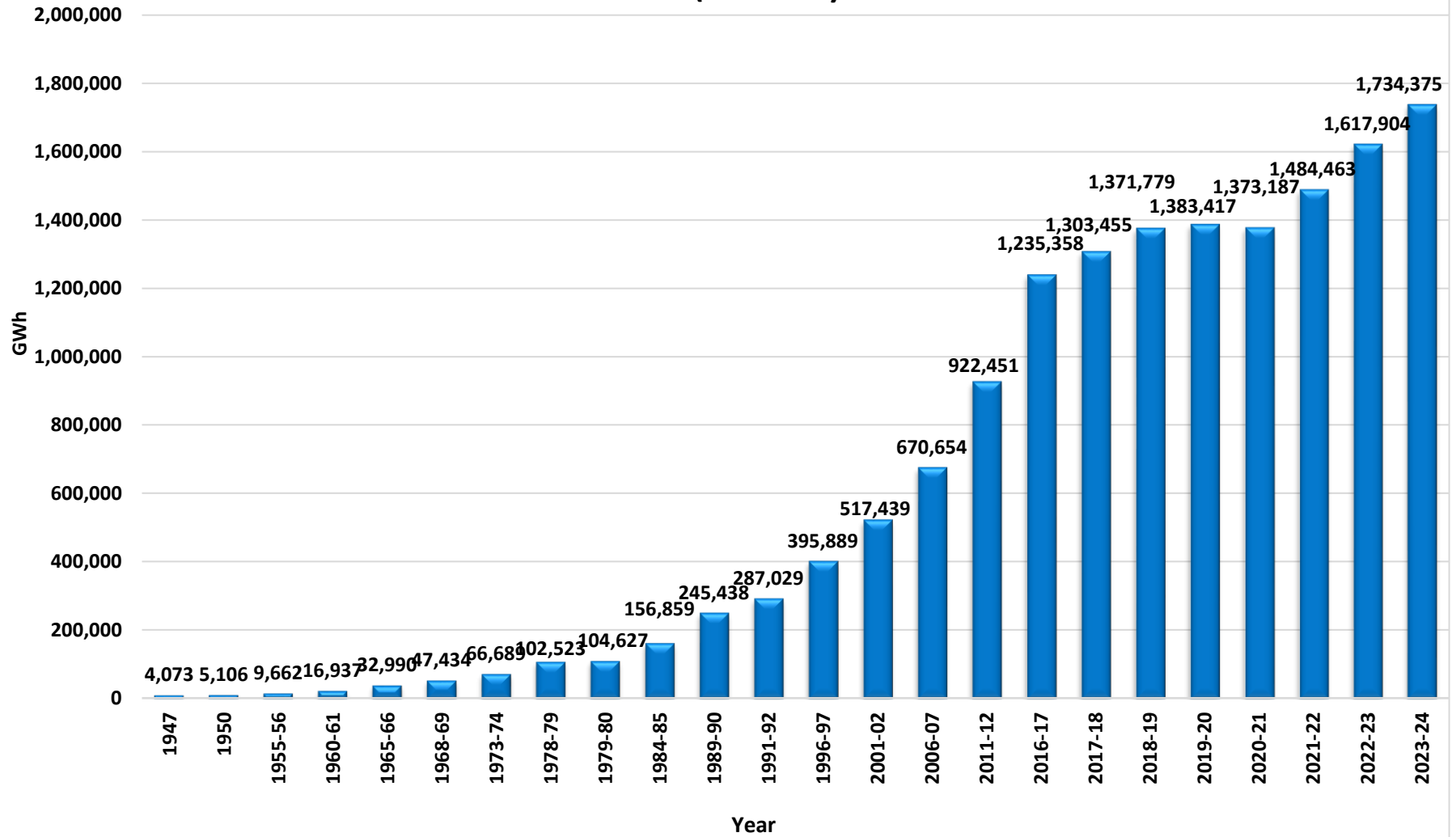
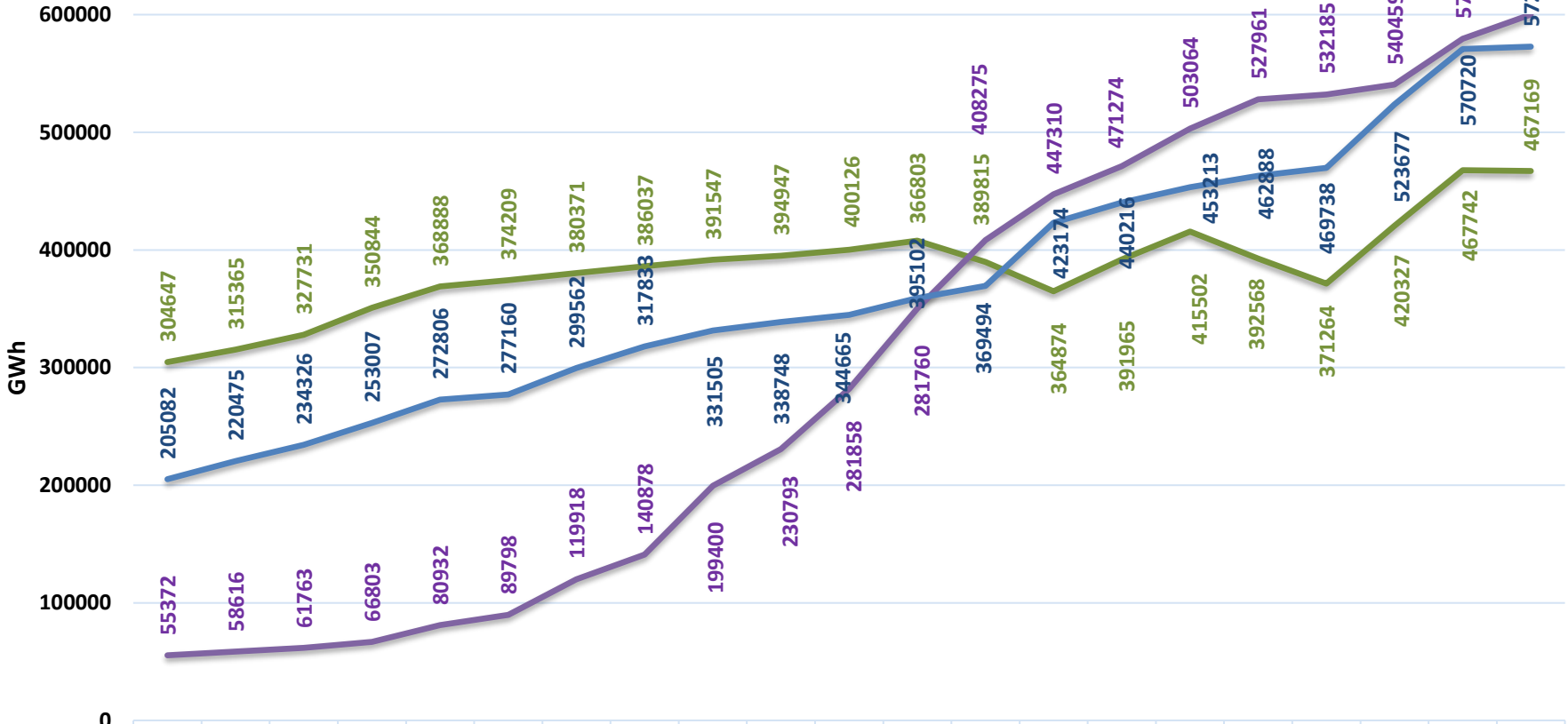


Chart : 15A

Electricity Generation Sector-wise (GWh) 2003-04 to 2023-24

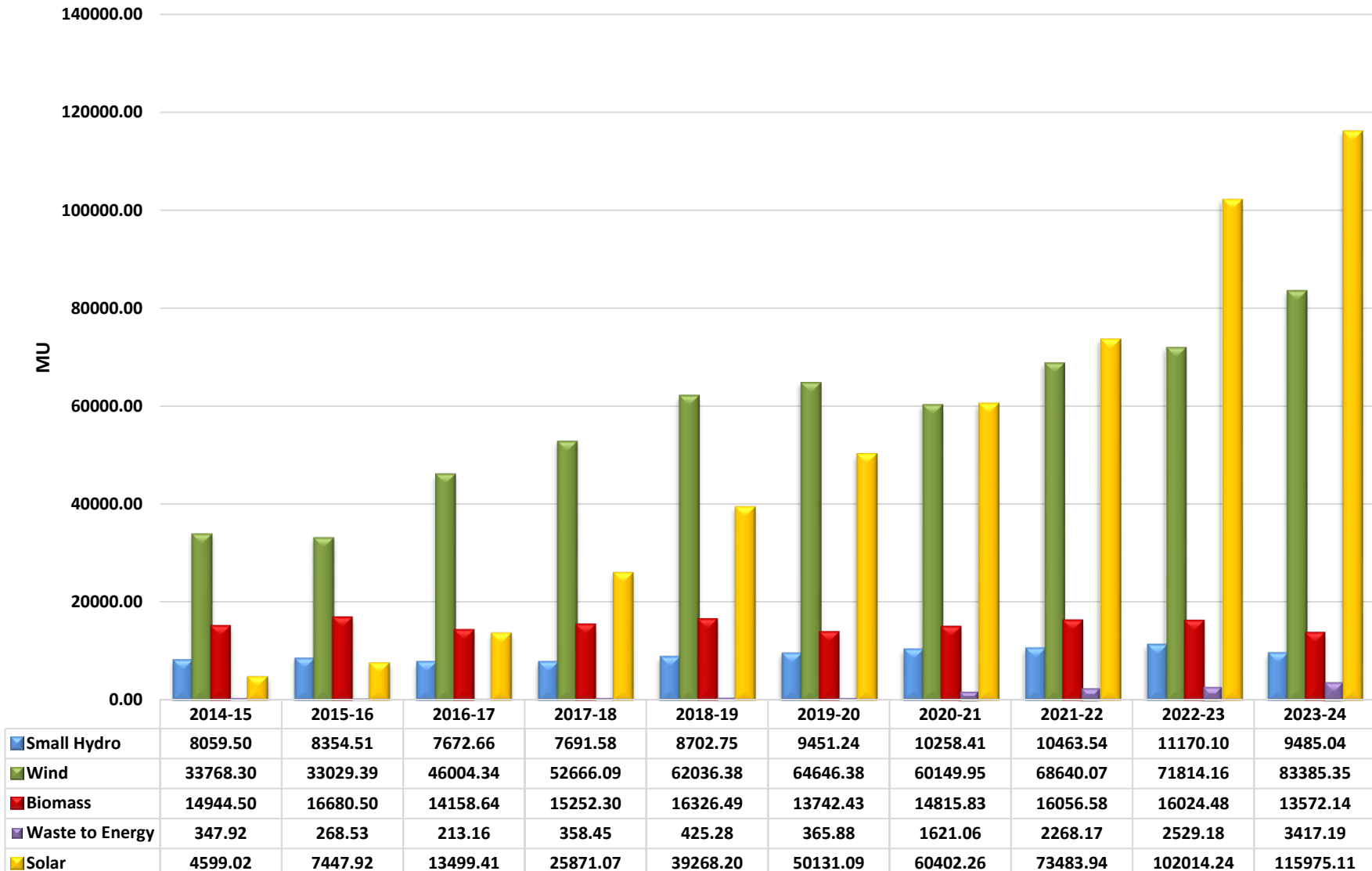


	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
State	304647	315365	327731	350844	368888	374209	380371	386037	391547	394947	400126	407817	389815	364874	391965	415502	392568	371264	420327	467742	467169
Private	55372	58616	61763	66803	80932	89798	119918	140878	199400	230793	281858	350074	408275	447310	471274	503064	527961	532185	540459	579442	600067
Central	205082	220475	234326	253007	272806	277160	299562	317833	331505	338748	344665	358959	369494	423174	440216	453213	462888	469738	523677	570720	572770

Note: DVC & RRMR Generation is considered under Central Sector

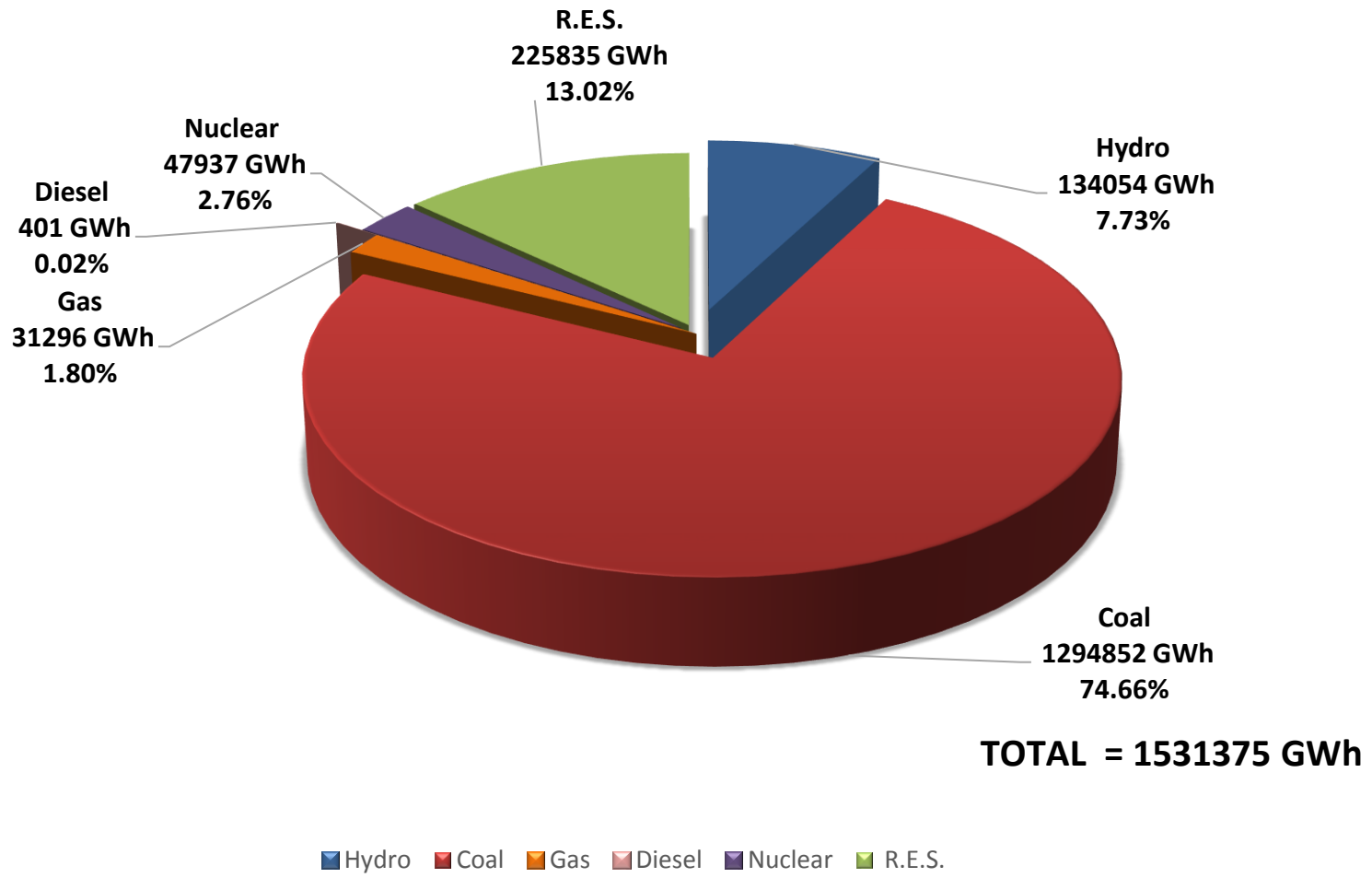
Electricity Generation from R.E.S. - Mode-wise/ Year-wise during last 10 years

Chart: 15B



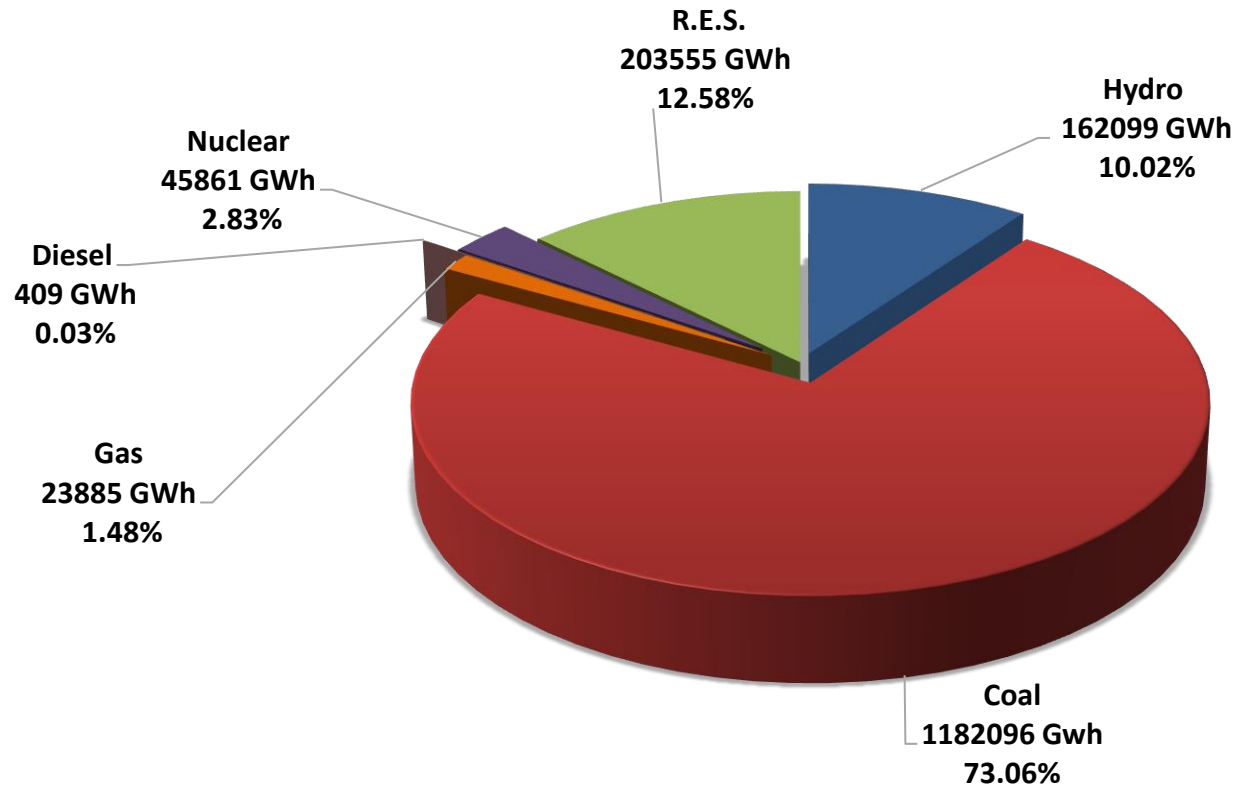
**Electricity Generation in India
Mode-wise -Utilities
2023-24**

Chart : 16



Electricity Generation in India Mode-wise -Utilities 2022-23

Chart : 16A

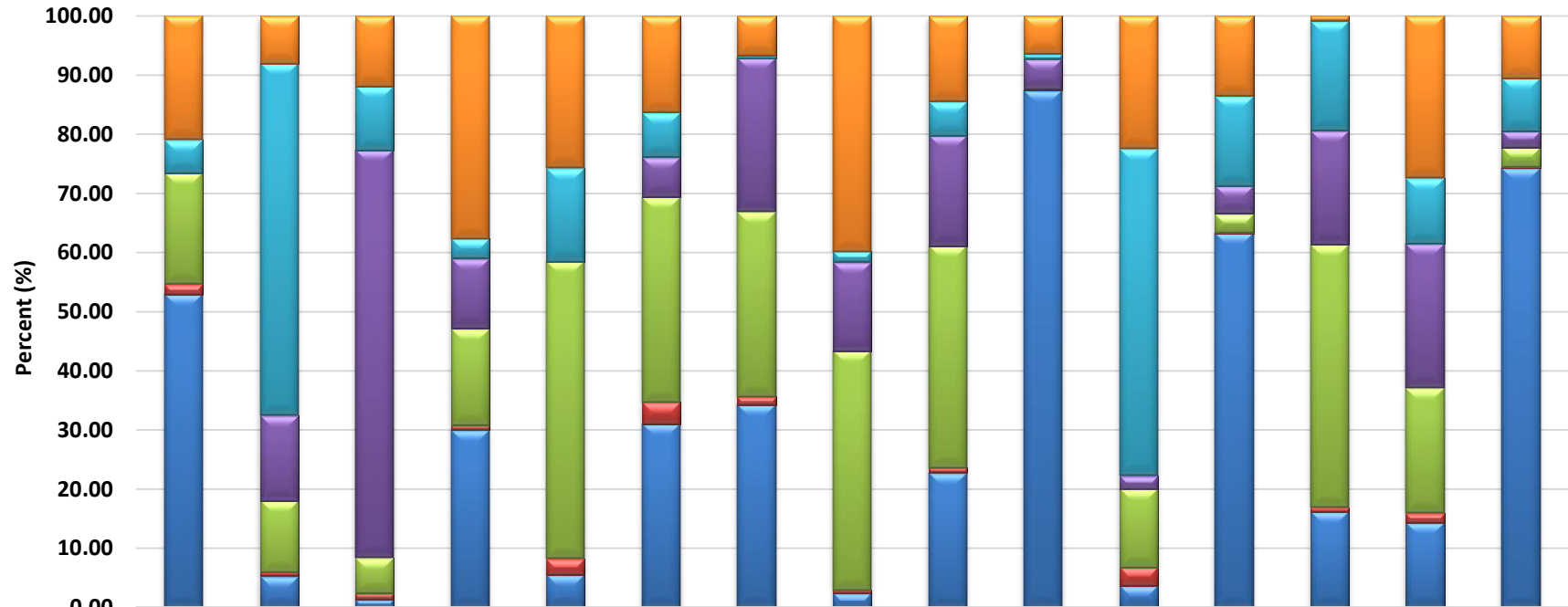


TOTAL 1617905 GWh

■ Hydro ■ Coal ■ Gas ■ Diesel ■ Nuclear ■ R.E.S.

Electricity Generation (% Share) Mode-Wise in Various Countries (2021)

Chart : 18



	Australia	Canada	France	Germany	Italy	Japan	Korea	United Kingdom	United States	South Africa	Brazil	People's Republic of China	Russian Federation	European Union - 28	India
Others	20.97	8.01	11.90	37.65	25.75	16.30	6.63	39.81	14.41	6.41	22.43	13.50	0.86	27.43	10.49
Hydro	5.57	59.54	10.82	3.37	15.82	7.58	0.50	1.80	5.82	0.85	55.30	15.19	18.53	11.09	8.97
Nuclear	0.00	14.41	68.86	11.86	0.00	6.81	25.99	15.03	18.64	5.16	2.24	4.76	19.30	24.37	2.78
Gas	18.78	12.02	6.05	16.32	50.18	34.56	31.28	40.42	37.53	0.00	13.25	3.13	44.40	21.16	3.35
Oil	1.76	0.67	1.04	0.79	2.70	3.72	1.34	0.50	0.83	0.14	3.11	0.13	0.73	1.62	0.14
Coal	52.92	5.36	1.33	30.02	5.55	31.03	34.26	2.44	22.77	87.45	3.67	63.29	16.19	14.33	74.26

Source : - International Energy Agency (IEA) except India

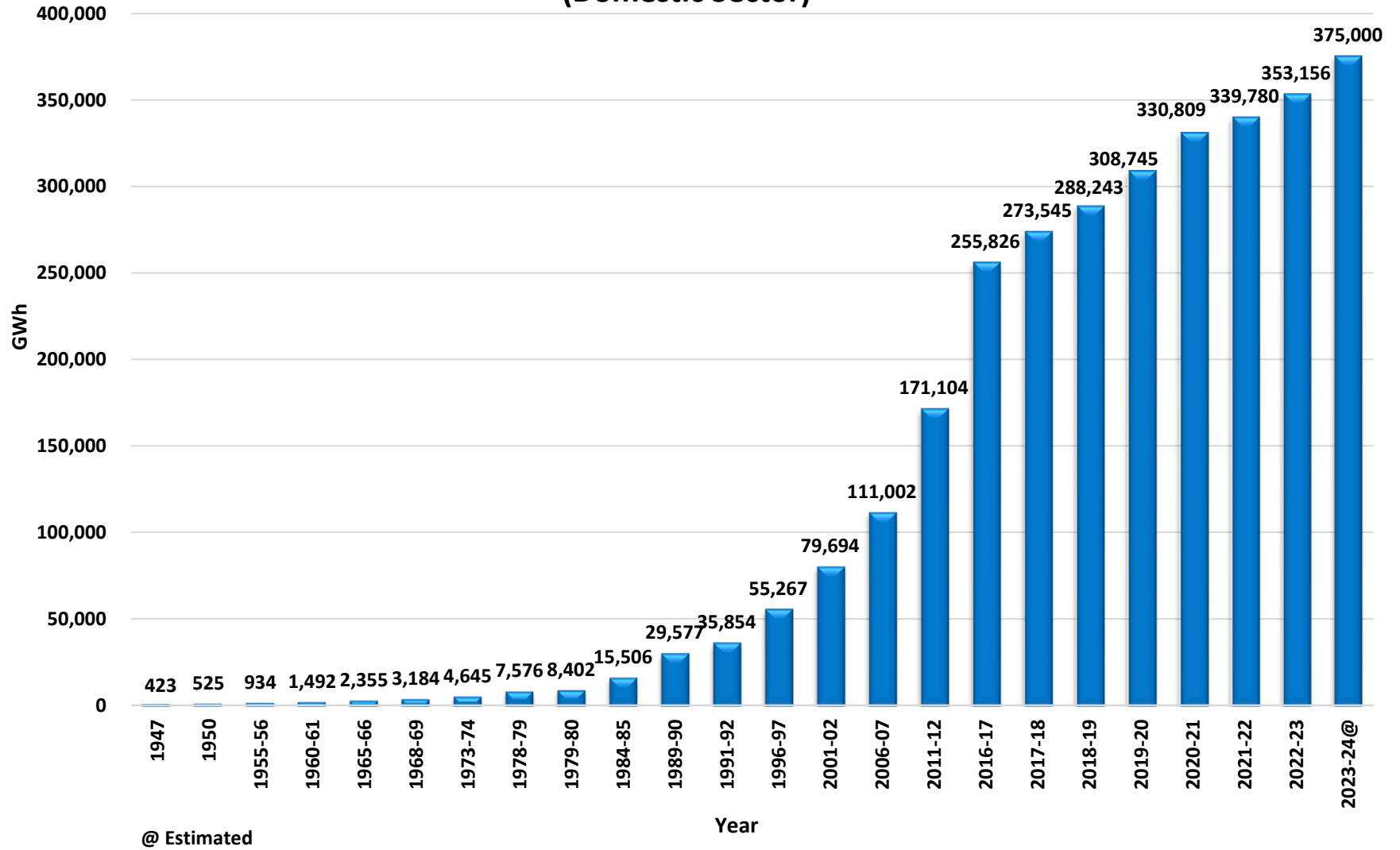
Table: 4
Category-wise Electricity Consumption in India
(Utilities & Non- Utilities)

Sl. No.	During financial year ending with	(GWh)											Total	
		Domestic	% to Total	Commercial	% to Total	Industrial	% to Total	Traction	% to Total	Agriculture	% to Total	Misc.		% to Total
1	1947	423	10.11	178	4.26	2,960	70.78	277	6.62	125	2.99	219	5.24	4,182
2	1950	525	9.36	309	5.51	4,057	72.32	308	5.49	162	2.89	249	4.44	5,610
3	1955-56 (End of the 1st Plan)	934	9.20	546	5.38	7,514	74.03	405	3.99	316	3.11	435	4.29	10,150
4	1960-61 (End of the 2nd Plan)	1,492	8.88	848	5.05	12,547	74.67	454	2.70	833	4.96	630	3.75	16,804
5	1965-66(End of the 3rd Plan)	2,355	7.73	1,650	5.42	22,596	74.19	1,057	3.47	1,892	6.21	905	2.97	30,455
6	1968-69(End of the 3 Annual Plans)	3,184	7.69	2,126	5.14	29,931	72.31	1,247	3.01	3,465	8.37	1,439	3.48	41,392
7	1973-74(End of the 4th Plan)	4,645	8.36	2,988	5.38	37,791	68.02	1,531	2.76	6,310	11.36	2,292	4.13	55,557
8	1978-79(End of the 5th Plan)	7,576	9.02	4,330	5.15	54,440	64.81	2,186	2.60	12,028	14.32	3,445	4.10	84,005
9	1979-80(End of the 2 Annual Plans)	8,402	9.85	4,657	5.46	53,206	62.35	2,301	2.70	13,452	15.76	3,316	3.89	85,334
10	1984-85 (End of the 6th Plan)	15,506	12.45	6,937	5.57	73,520	59.02	2,880	2.31	20,961	16.83	4,765	3.83	124,569
11	1989-90 (End of the 7th Plan)	29,577	15.16	9,548	4.89	100,373	51.45	4,070	2.09	44,056	22.58	7,474	3.83	195,098
12	1991-92(End of the 2 Annual Plans)	35,854	15.51	12,032	5.20	110,844	47.94	4,520	1.96	58,557	25.33	9,394	4.06	231,201
13	1996-97(End of the 8th Plan)	55,267	17.53	17,519	5.56	139,253	44.17	6,594	2.09	84,019	26.65	12,642	4.01	315,294
14	2001-02(End of the 9th Plan)	79,694	21.27	24,139	6.44	159,507	42.57	8,106	2.16	81,673	21.80	21,551	5.75	374,670
15	2006-07(End of 10th Plan)	111,002	21.12	40,220	7.65	241,216	45.89	10,800	2.05	99,023	18.84	23,411	4.45	525,672
16	2011-12 (End of 11th Plan)	171,104	21.79	65,381	8.33	352,291	44.87	14,206	1.81	140,960	17.95	41,252	5.25	785,194
17	2016-17 (End of 12th Plan)	255,826	24.11	89,825	8.46	440,206	41.48	15,683	1.48	191,151	18.01	68,493	6.45	1,061,183
18	2017-18	273,545	24.35	93,755	8.35	468,613	41.71	17,433	1.55	199,247	17.74	70,834	6.31	1,123,427
19	2018-19	288,243	23.82	98,228	8.12	519,196	42.91	18,837	1.56	213,409	17.64	72,058	5.96	1,209,972
20	2019-20	308,745	24.74	106,047	8.50	532,820	42.69	19,148	1.53	211,295	16.93	70,031	5.61	1,248,086
21	2020-21	330,809	26.89	86,950	7.07	508,776	41.36	14,668	1.19	221,303	17.99	67,701	5.50	1,230,208
22	2021-22	339,780	25.80	97,121	7.38	556,481	42.26	21,935	1.67	228,451	17.35	72,996	5.54	1,316,765
23	2022-23	353,156	24.52	117,231	8.14	593,895	41.23	30,028	2.08	243,852	16.93	102,149	7.09	1,440,311
24	2023-24 @	375,000	24.30	125,000	8.10	645,000	41.80	33,000	2.14	255,000	16.53	110,000	7.13	1,543,000

(@) Estimated

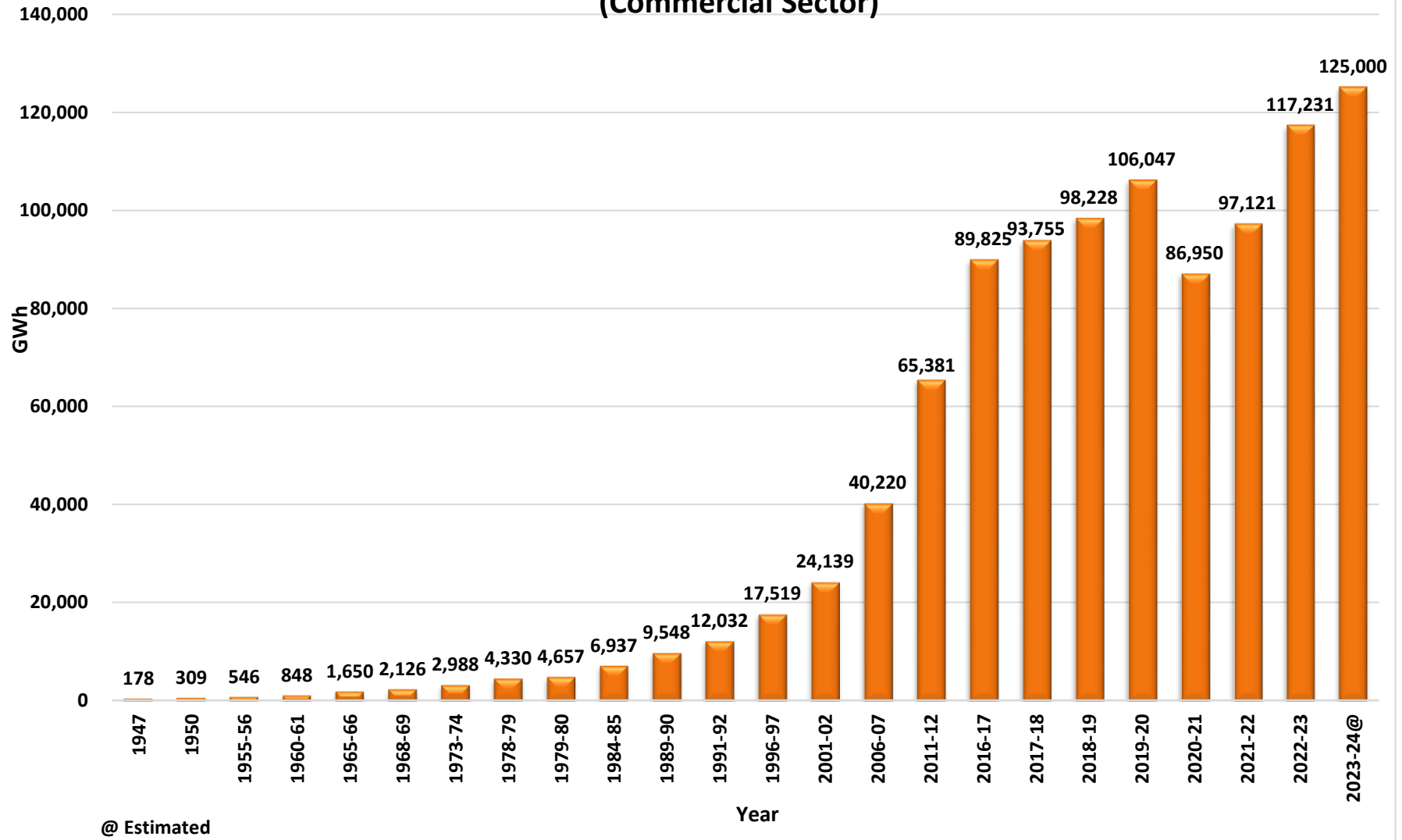
Electricity Consumption (Domestic Sector)

Chart : 19



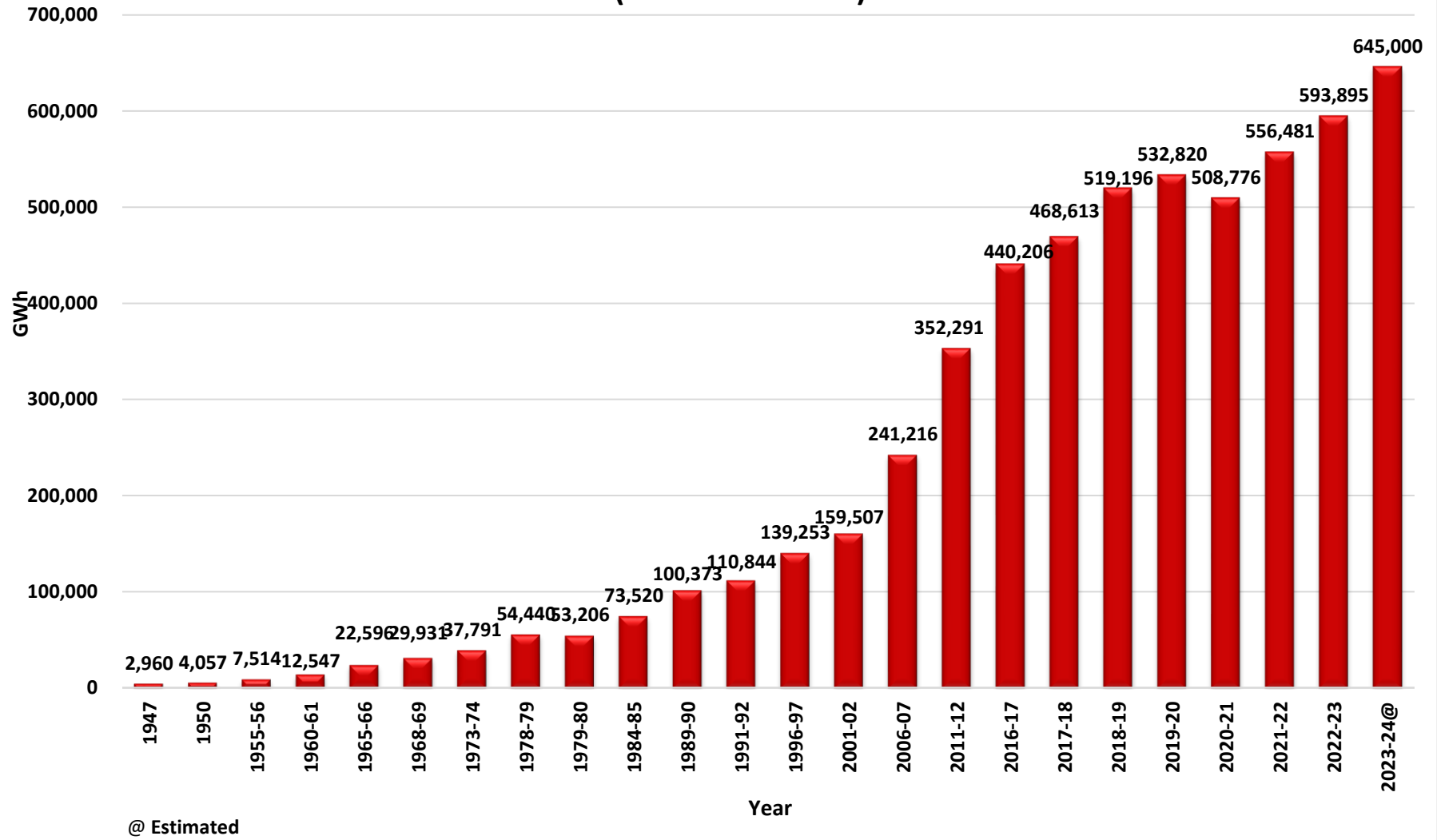
Electricity Consumption (Commercial Sector)

Chart : 20



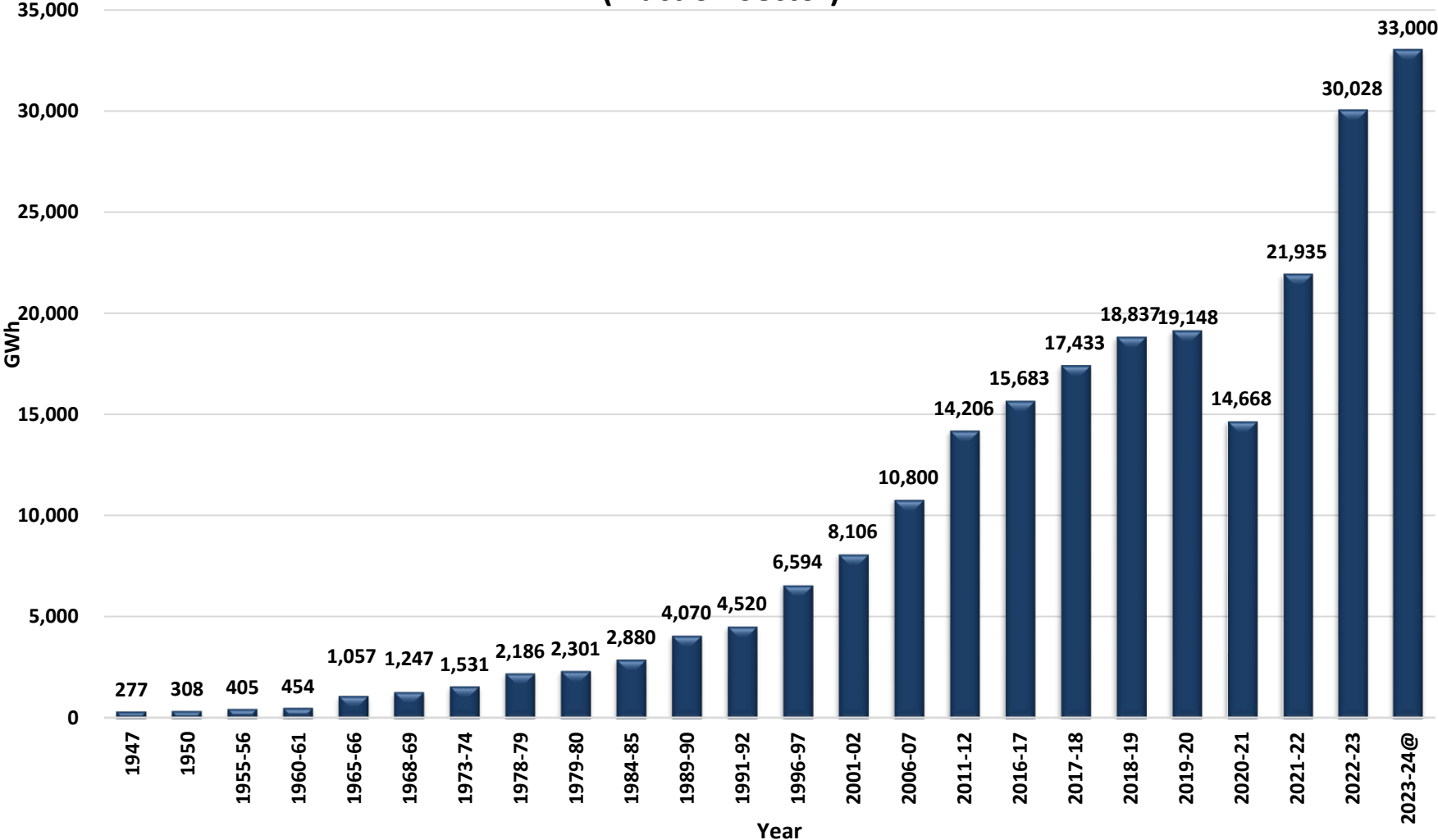
Electricity Consumption (Industrial Sector)

Chart : 21



Electricity Consumption (Traction Sector)

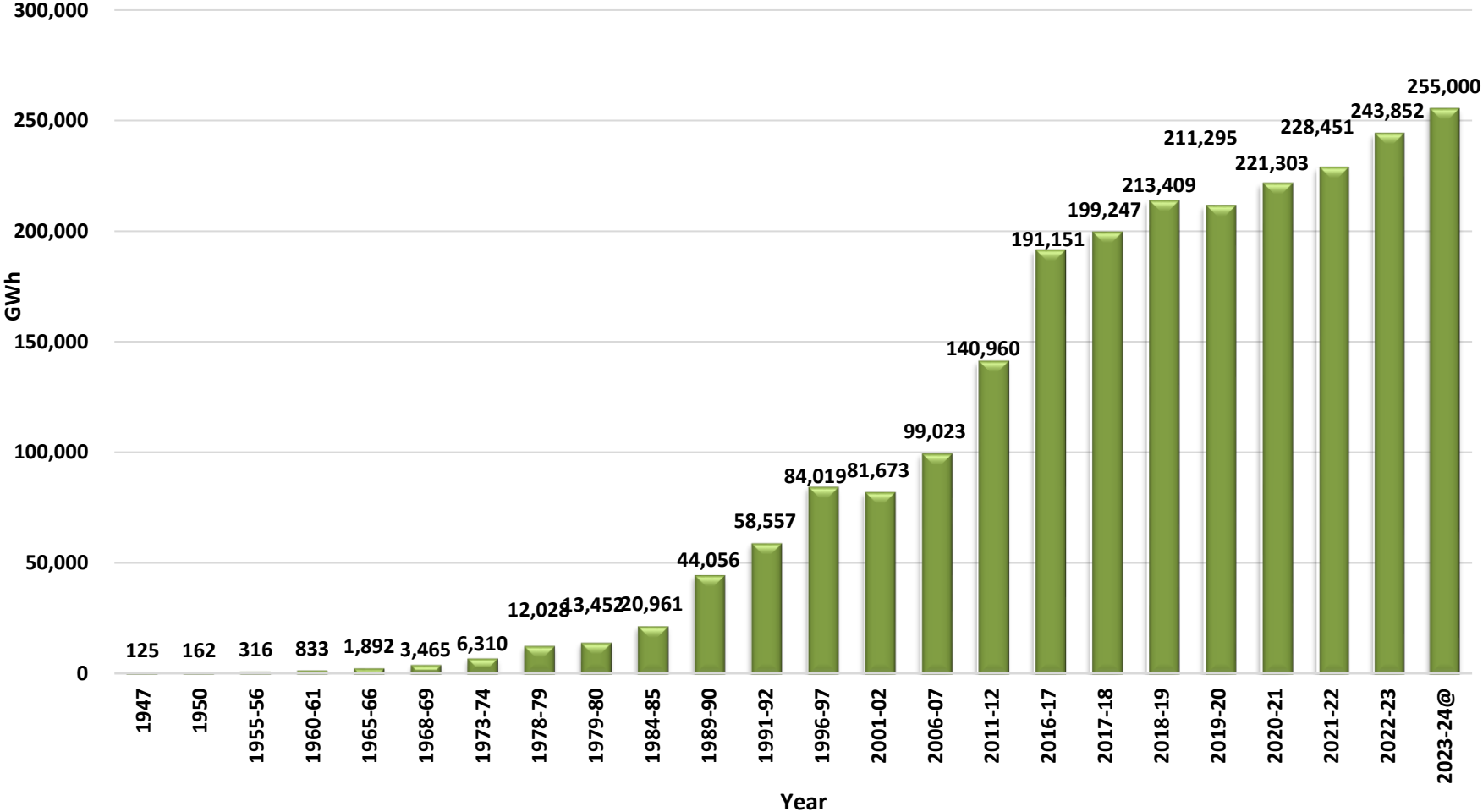
Chart : 22



@ Estimated

Electricity Consumption (Agriculture Sctor)

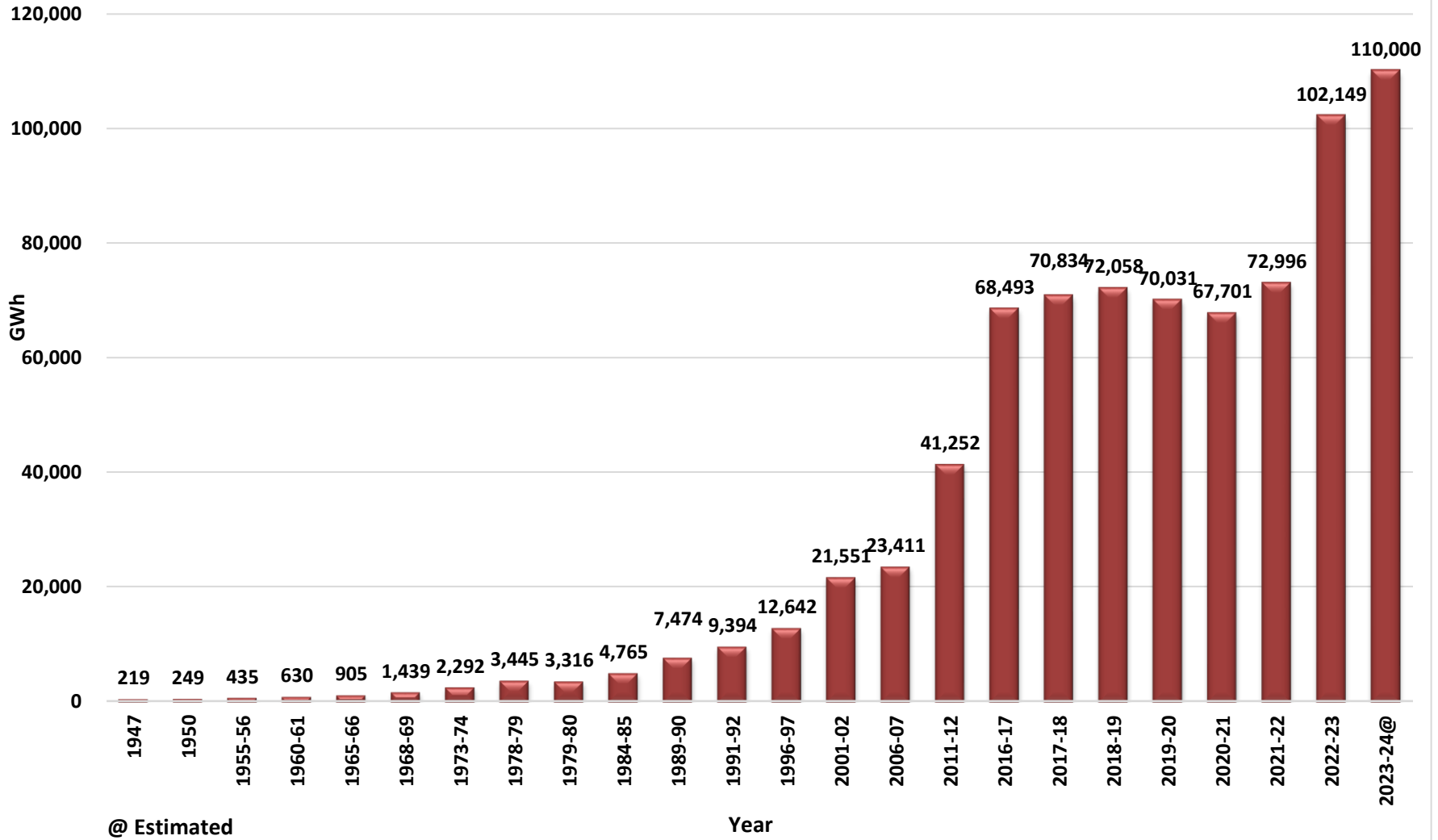
Chart : 23



@ Estimated

Electricity Consumption (Miscellaneous Sector)

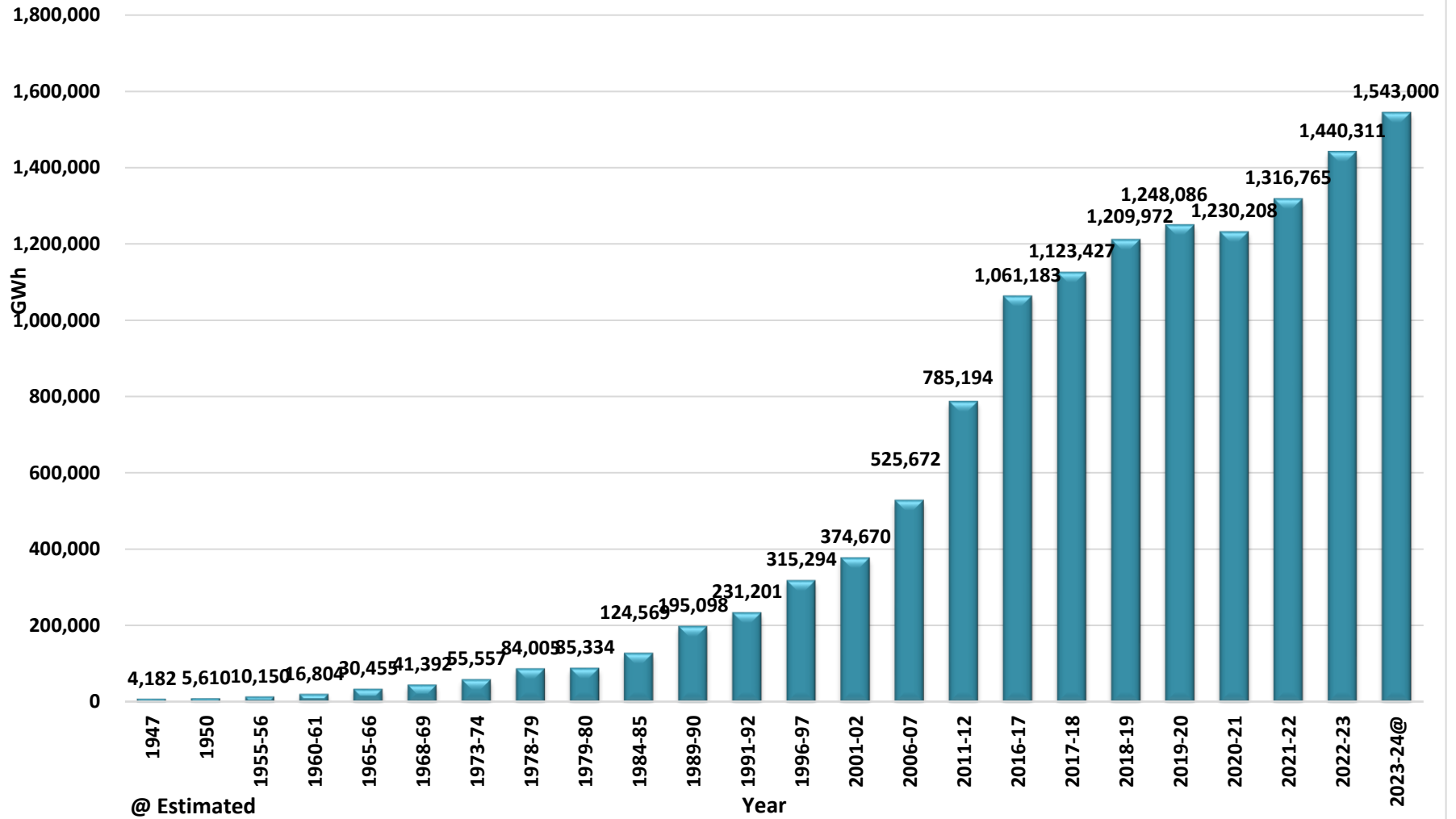
Chart : 24



@ Estimated

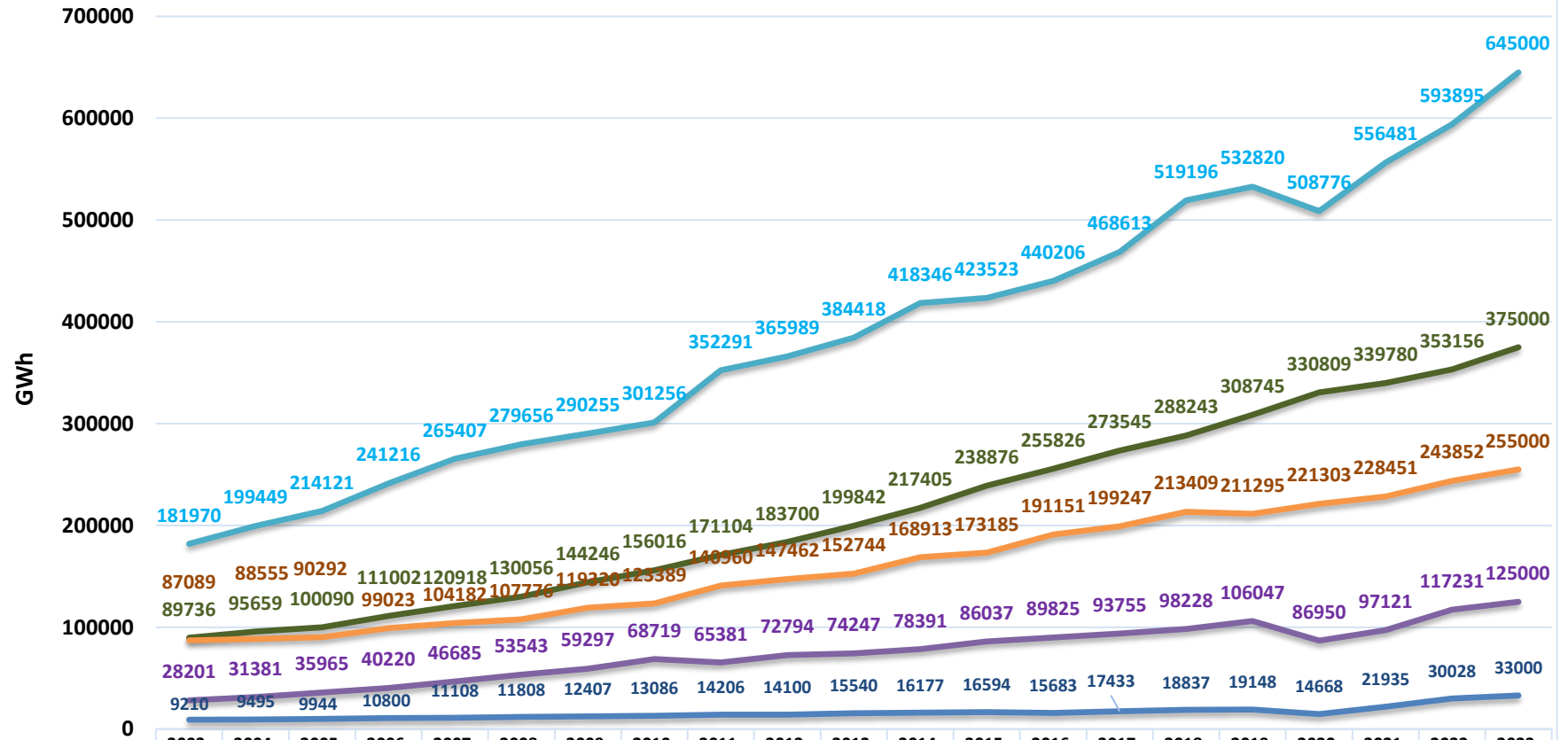
All India Total Electricity Consumption (Utilities & Non-Utilities)

Chart : 25



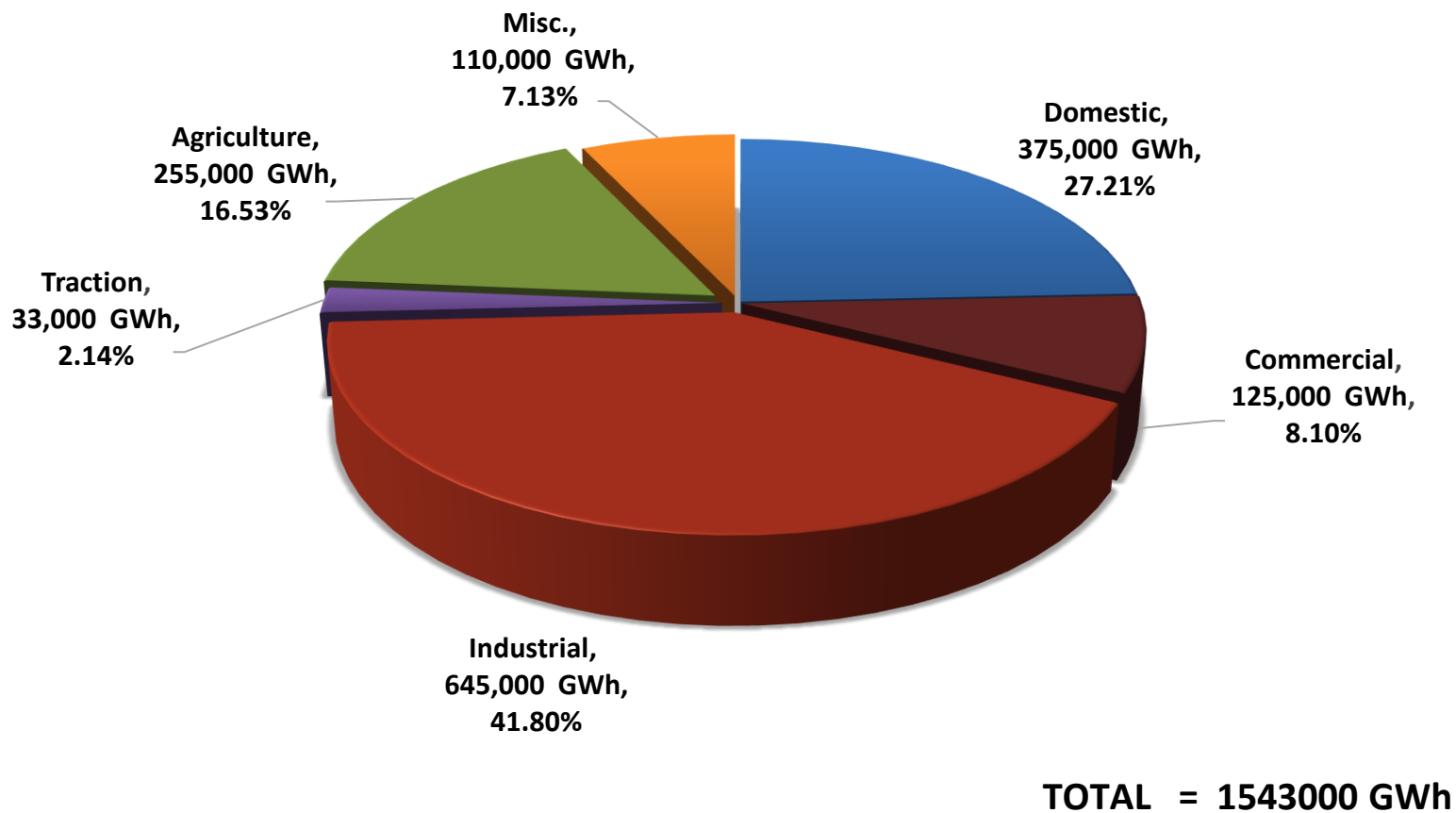
Trend of Energy Consumption - Category-wise 2003-04 TO 2023-24

Chart : 25A



	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Domestic	89736	95659	100090	111002	120918	130056	144246	156016	171104	183700	199842	217405	238876	255826	273545	288243	308745	330809	339780	353156	375000
Commercial	28201	31381	35965	40220	46685	53543	59297	68719	65381	72794	74247	78391	86037	89825	93755	98228	106047	86950	97121	117231	125000
Industrial	181970	199449	214121	241216	265407	279656	290255	301256	352291	365989	384418	418346	423523	440206	468613	519196	532820	508776	556481	593895	645000
Agriculture	87089	88555	90292	99023	104182	107776	119320	123389	140960	147462	152744	168913	173185	191151	199247	213409	211295	221303	228451	243852	255000
Traction	9210	9495	9944	10800	11108	11808	12407	13086	14206	14100	15540	16177	16594	15683	17433	18837	19148	14668	21935	30028	33000

Electricity Consumption Sector-wise (Utilities & Non- Utilities) 2023-24

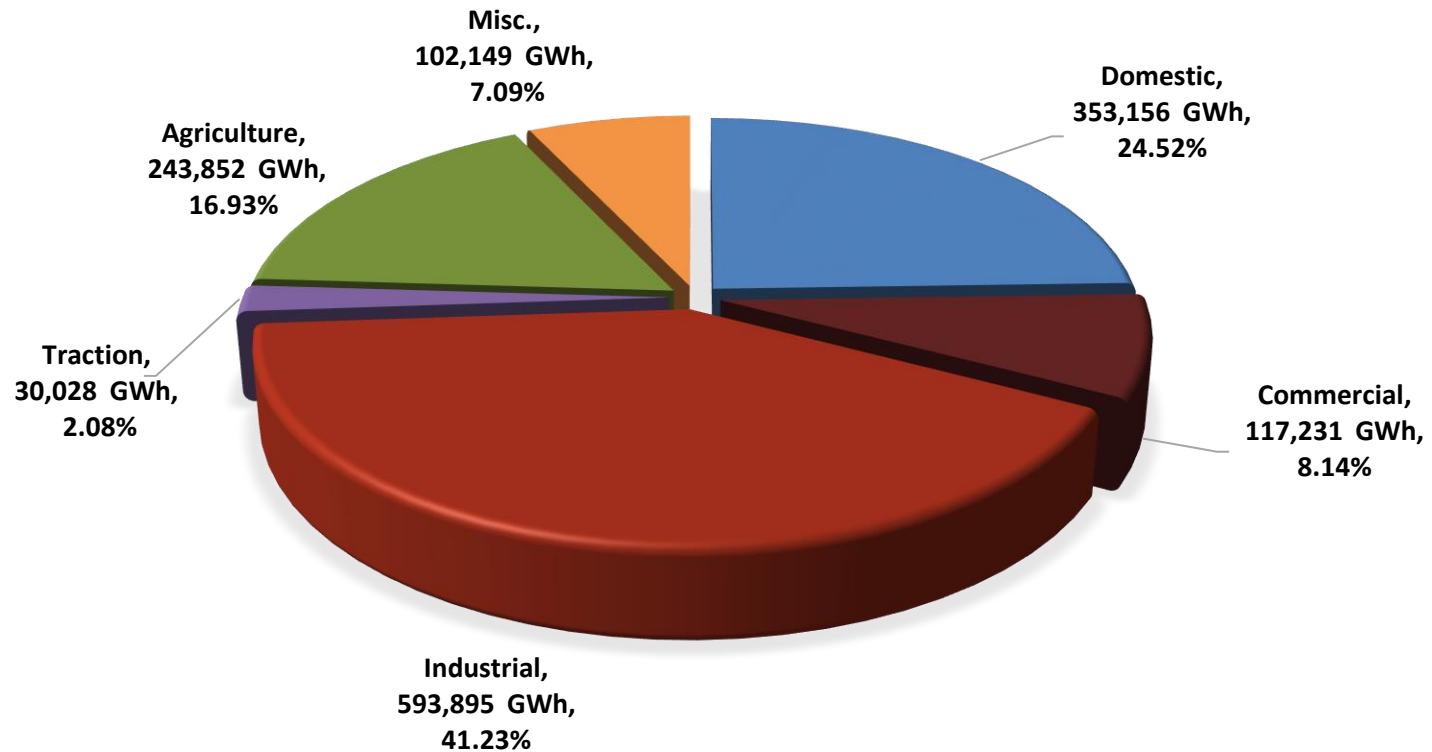


@ Estimated

■ Domestic ■ Commercial ■ Industrial ■ Traction ■ Agriculture ■ Misc.

Chart : 26A

Electricity Consumption Sector-wise (Utilities & Non-Utilities) 2022-23

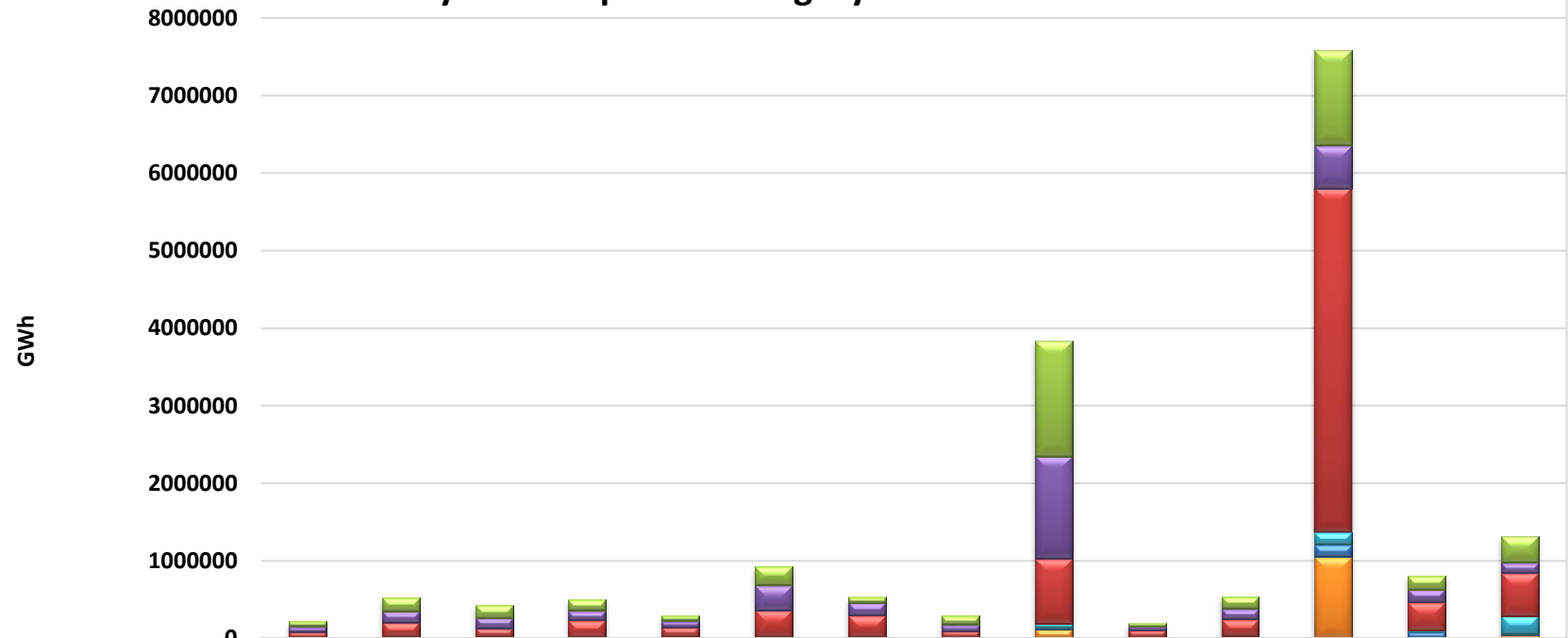


TOTAL 1440311 GWh

■ Domestic ■ Commercial ■ Industrial ■ Traction ■ Agriculture ■ Misc.

Chart : 27

Electricity Consumption - Category-wise in Various Countries -2021

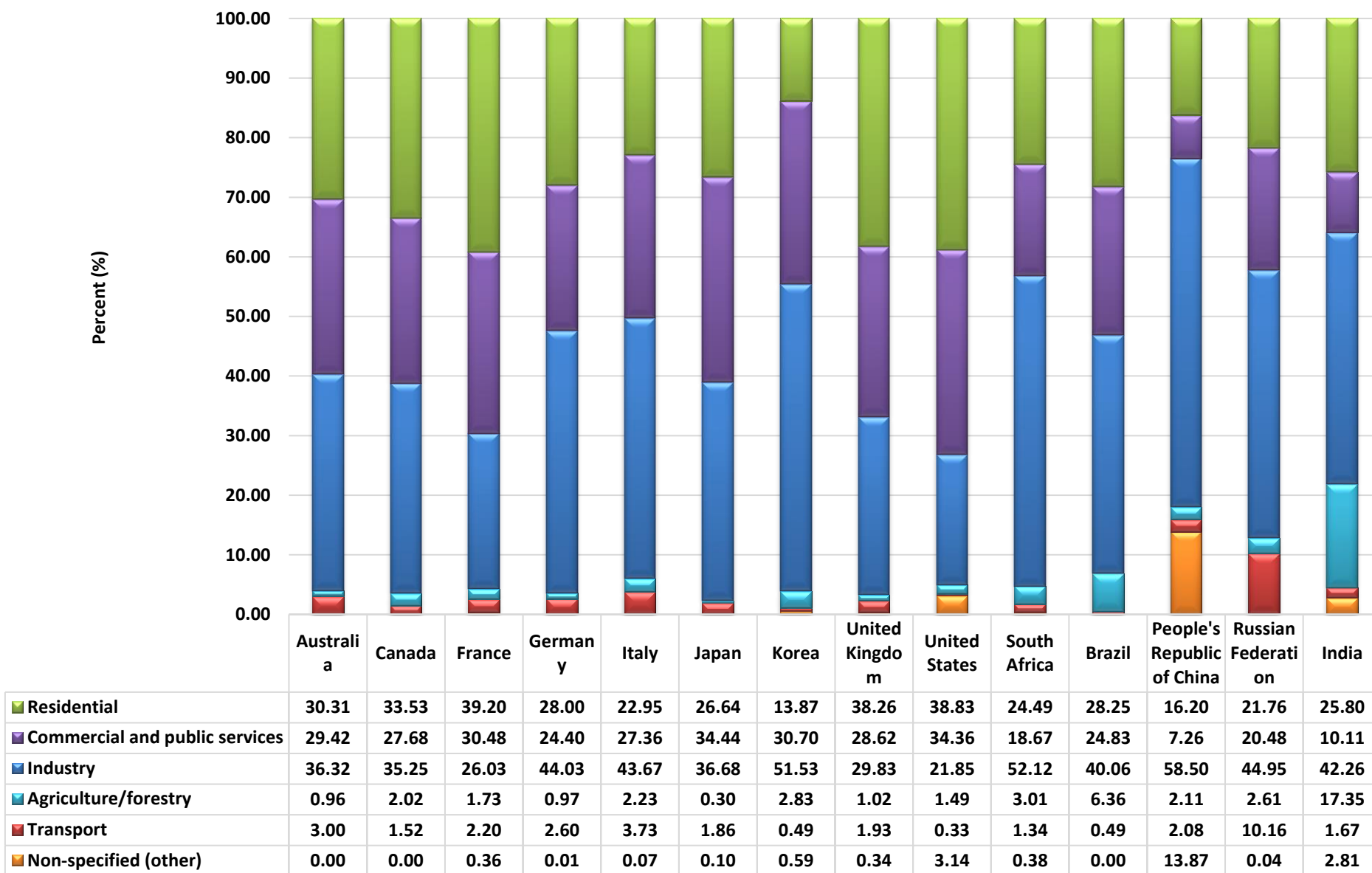


	Australia	Canada	France	Germany	Italy	Japan	Korea	United Kingdom	United States	South Africa	Brazil	People's Republic of China	Russian Federation	India
Residential	65580	175929	169776	138471	67052	248246	74215	109450	1490299	47355	150473	1227890	175768	339780
Commercial and public services	63651	145236	131985	120682	79937	320922	164220	81870	1318686	36110	132266	550068	165377	133090
Industry	78579	184916	112729	217765	127607	341787	275642	85312	838638	100799	213329	4434671	363034	556481
Agriculture/forestry	2073	10596	7511	4799	6516	2754	15118	2912	57321	5824	33882	159654	21050	228451
Transport	6494	7955	9507	12868	10888	17297	2626	5524	12805	2587	2636	157336	82060	21935
Non-specified (other)	0	0	1564	38	198	905	3141	971	120460	728	0	1051394	331	37028

Source: International Energy Agency (IEA) except India

Chart : 28

Electricity Consumption (Category-wise % Share) in Various Countries -2021



Source: - International Energy Agency (IEA) except India

Table 5
Per Capita Electricity Consumption and T&D Losses
of various Countries in 2020 & 2021

Sl. No.	Per Capita Consumption (kWh)			Sl. No.	T & D Losses (%)		
	Name of the Country	2020	2021		Name of the Country	2020	2021
1	Canada	14,760	14,737	1	Korea	3.63	3.62
2	USA	12,450	12,613	2	Japan	5.10	5.26
3	Australia	9,890	9,880	3	Germany	5.39	5.37
4	Japan	7,730	7,975	4	Italy	6.31	6.51
5	France	6,630	6,908	5	Australia	5.16	5.82
6	Germany	6,330	6,529	6	South Africa	13.69	12.83
7	Korea	10,810	11,402	7	France	8.73	9.03
8	UK	4,510	4,539	8	China	4.74	4.30
9	Russia	6,590	7,252	9	USA	5.24	6.36
10	Italy	4,970	5,280	10	Canada	6.29	6.09
11	South Africa	3,540	3,637	11	UK	9.38	8.86
12	Brazil	2,540	2,663	12	Russia	12.75	12.11
13	China	5,260	5,848	13	Brazil	20.76	20.35
14	India*	1,161	1,255	14	India	20.73	19.27
15	World	3,210	3,358	15	World	8.51	7.50

Note :-

Basic data obtained from IEA Website (except) India.

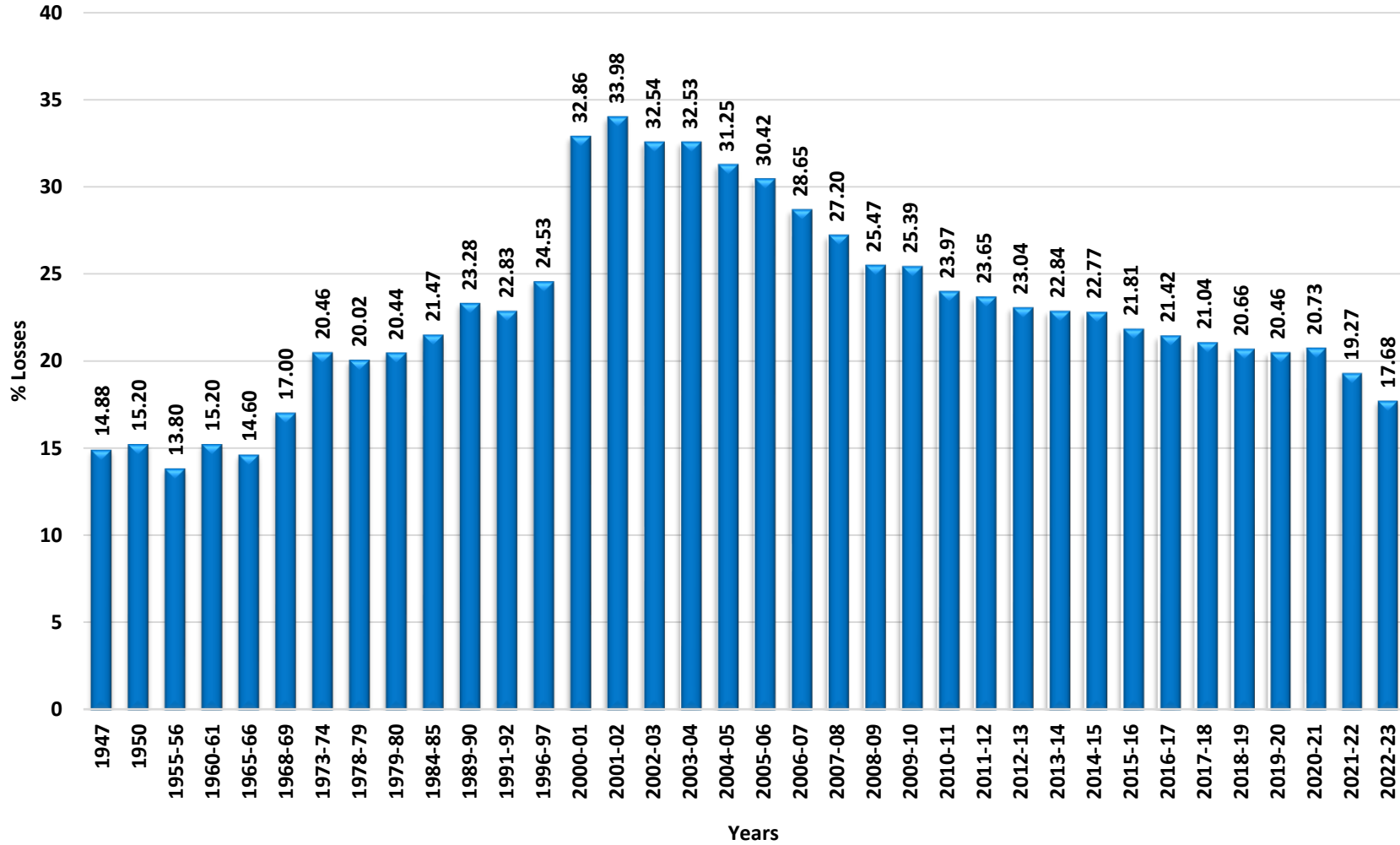
* Per Capita Consumption= (Gross Electrical Energy Availability/Midyear Population).

Per Capita Consumption of India during the year 2021-22 & 2022-23 is 1255 & 1331 respectively.

T&D Losses of India during the year 2022-23 is 17.68%

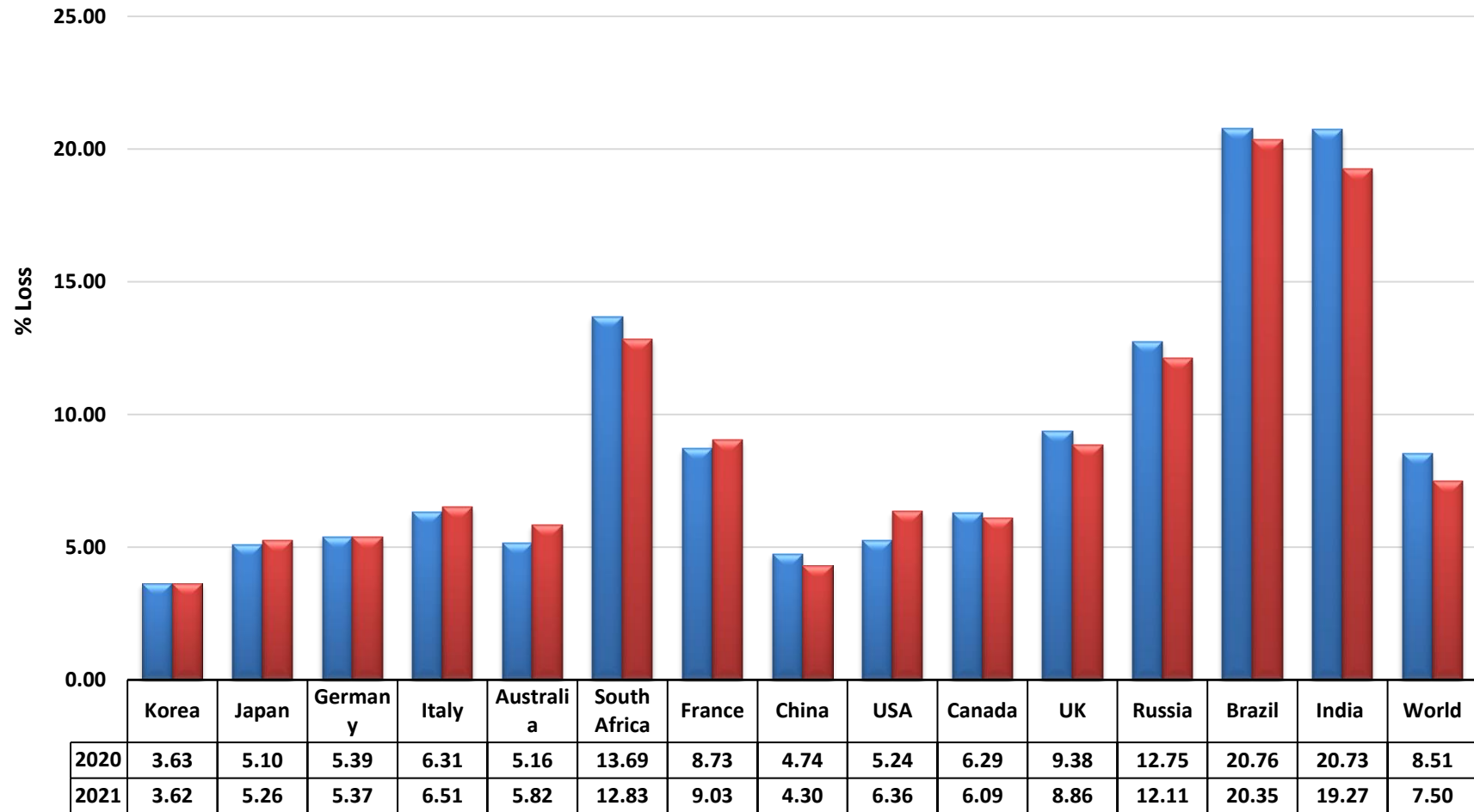
All India Transmission and Distribution Losses (%)

Chart : 29



**T & D Losses (%) of Various Countries
(2020 & 2021)**

Chart : 30



Source: - International Energy Agency (IEA) (except India)

■ 2020 ■ 2021

Table 6
Installed Generation Capacity of Captive Power Plants in Industries having
Demand of 0.5 MW & Above - Mode-wise

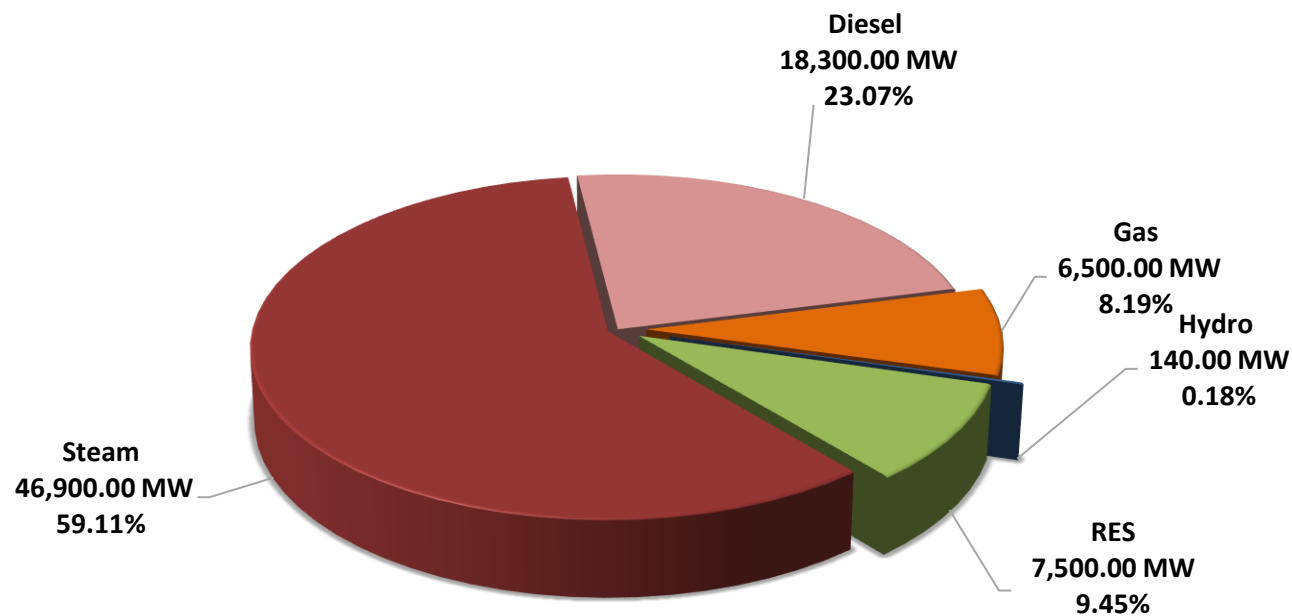
(MW)

Sl. No.	As on	Steam	Diesel	Gas	Hydro	RES	Railways	Total
1	2	3	4	5	6	7	8	9
								(3+4+5+6+7+8)
1	31.12.1947	**	**	**	**	**	0.00	410.00
2	31.12.1950	**	**	**	**	**	0.00	587.85
3	31.03.1956 (End of the 1st Plan)	**	**	**	**	**	0.00	759.65
4	31.03.1961 (End of the 2nd Plan)	**	**	**	**	**	0.00	1,001.37
5	31.03.1966(End of the 3rd Plan)	**	**	**	**	**	0.00	1,082.36
6	31.03.1969(End of the 3 Annual Plans)	**	**	**	**	**	0.00	1,277.47
7	31.03.1974(End of the 4th Plan)	**	**	**	**	**	0.00	1,732.70
8	31.03.1979(End of the 5th Plan)	1,949.23	559.17	44.27	2.61	0.00	62.31	2,617.59
9	31.03.1980(End of the 2 Annual Plans)	2,021.61	720.58	54.27	2.61	0.00	60.44	2,859.51
10	31.03.1985 (End of the 6th Plan)	2,803.18	2,077.06	155.31	2.91	0.00	81.80	5,120.26
11	31.03.1990 (End of the 7th Plan)	4,822.85	2,754.48	425.51	3.60	0.00	109.29	8,115.73
12	31.03.1992 (End of the 2 Annual Plans)	5,377.10	3,291.06	495.72	4.30	0.00	133.23	9,301.41
13	31.03.1997(End of the 8th Plan)	6,151.69	4,529.91	1,166.38	3.50	64.83	162.62	12,078.93
14	31.03.2002(End of the 9th Plan)	8,354.03	6,521.95	2,125.91	51.10	92.21	0.00	17,145.20
15	31.03.2007 (End of 10th Plan)	11,397.52	7,723.35	2,976.00	60.50	177.67	0.00	22,335.04
16	31.03.2012(End of 11th Plan)	22,615.39	9,955.23	5,884.95	47.59	872.21	0.00	39,375.37
17	31.03.2017 (End of 12th Plan)	30,571.95	13,349.69	6,109.21	65.29	1,433.06	0.00	51,529.19
18	31.03.2018	32,854.41	13,144.60	7,156.37	50.96	1,726.17	0.00	54,932.51
19	31.03.2019	47,679.04	15,570.97	8,787.13	103.39	3,066.59	0.00	75,207.13
20	31.03.2020	51,542.77	12,774.66	7,315.87	130.77	4,475.29	0.00	76,239.36
21	31.03.2021	47,759.52	17,562.86	7,361.11	130.70	5,693.78	0.00	78,507.97
22	31.03.2022	45,302.73	18,648.78	5,685.25	134.60	6,961.08	0.00	76,732.43
22	31.03.2023	46782.173	18077.84	6360.26	132.26	7047.29	0.00	78,399.82
23	31.03.2024@	46,900.00	18,300.00	6,500.00	140.00	7,500.00	0.00	79,340.00

** Breakup Not Available

@ Estimated

Installed Generation Capacity of Captive Power Plants in Industries Demand of 0.5 MW & Above - Mode-wise (As on 31.03.2024)



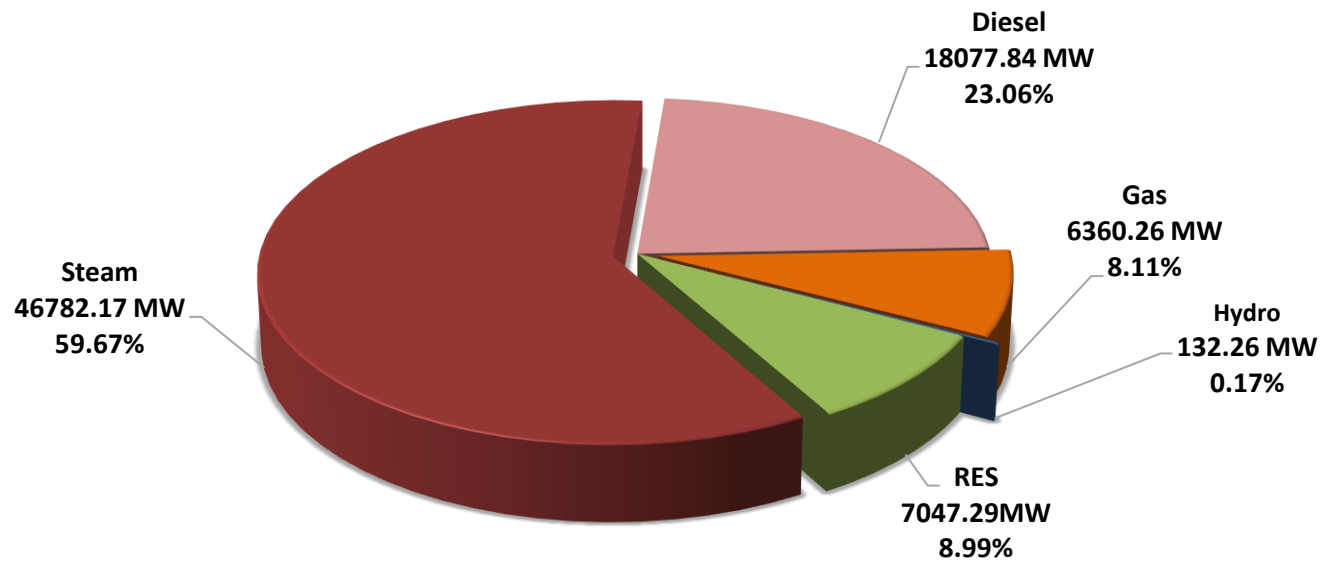
@-Estimated

TOTAL = 79340 MW

■ Steam ■ Diesel ■ Gas ■ Hydro ■ RES

Chart : 31A

**Installed Generation Capacity of Captive Power Plants in Industries
Demand of 0.5MW & Above - Mode-wise
(As on 31.03.2023)**

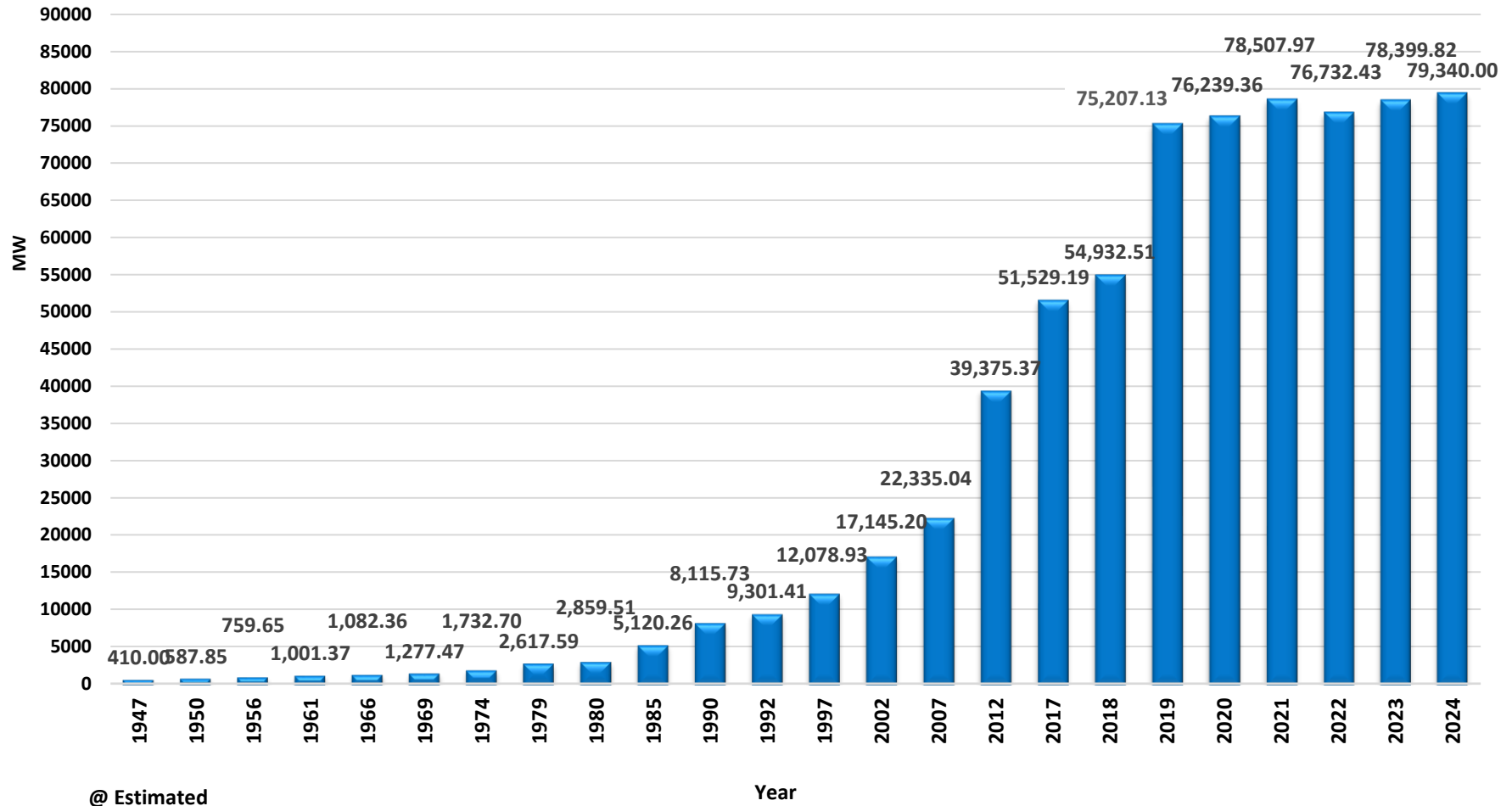


TOTAL = 78399.82 MW

■ Steam ■ Diesel ■ Gas ■ Hydro ■ RES

Installed Generating Capacity of Captive Power Plants Industries Demand of 0.5MW & Above

Chart : 32



Note: 1. Figures for the years 1947 & 1950 are as on 31st December.
 2. Figures for the year 1955-56 & onward are as on 31st March.

Table 7
Energy Generated by Captive Power Plants Industries having Demand of 0.5 MW & Above
Mode-wise

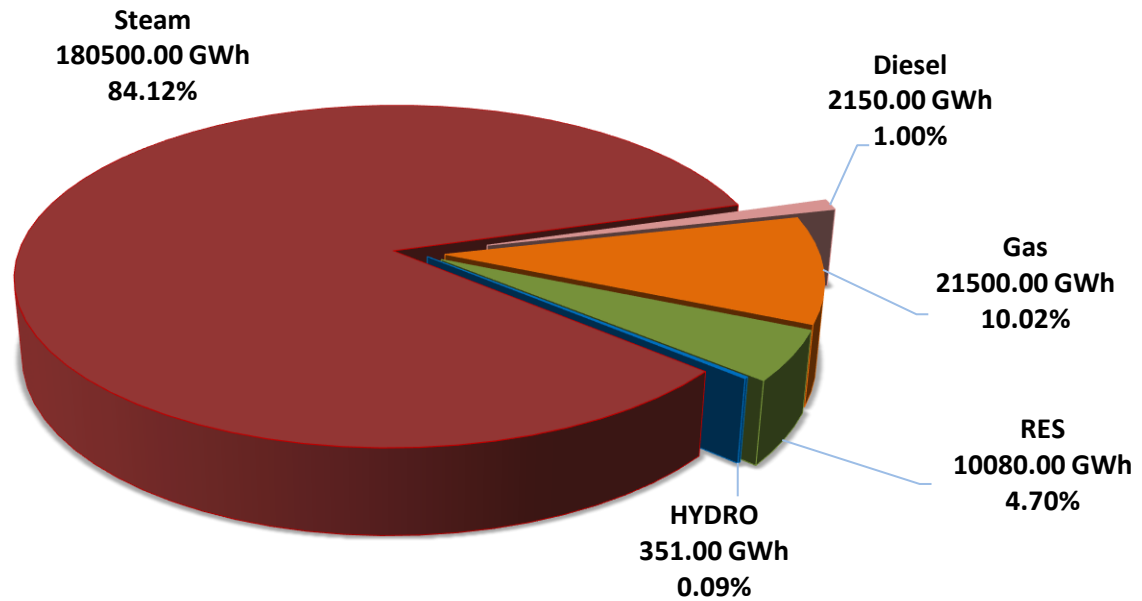
								(GWh)
Sl. No.	During financial year ending with	Hydro	Steam	Diesel	Gas	RES	Railways	Total
1	2	3	4	5	6	7	8	9
								(3+4+5+6+7+8)
1	1947	**	**	**	**	**	**	856.91
2	1950	**	**	**	**	**	0.00	1,467.81
3	1955-56 (End of the 1st Plan)	**	**	**	**	**	0.00	2,184.82
4	1960-61 (End of the 2nd Plan)	**	**	**	**	**	0.00	3,186.10
5	1965-66(End of the 3rd Plan)	**	**	**	**	**	0.00	3,733.19
6	1968-69(End of the 3 Annual Plans)	**	**	**	**	**	0.00	4,136.06
7	1973-74(End of the 4th Plan)	**	**	**	**	**	0.00	6,067.47
8	1978-79(End of the 5th Plan)	13.22	7,211.30	299.13	48.97	0.00	34.47	7,607.09
9	1979-80(End of the 2 Annual Plans)	15.06	7,225.60	825.71	90.67	0.00	35.67	8,192.71
10	1984-85 (End of the 6th Plan)	18.29	9,966.55	2,001.18	317.03	0.00	42.80	12,345.85
11	1989-90 (End of the 7th Plan)	15.83	19,110.46	2,757.27	1,313.29	0.00	29.07	23,225.92
12	1991-92(End of the 2 Annual Plans)	17.57	23,409.35	3,247.81	1,905.24	0.00	22.52	28,602.49
13	1996-97(End of the 8th Plan)	28.84	29,127.94	6,573.38	5,039.22	45.63	25.07	40,840.08
14	2001-02(End of the 9th Plan)	116.59	41,853.85	10,719.66	8,835.19	155.53	0.00	61,680.82
15	2006-07(End of 10th Plan)	217.81	56,184.04	9,974.85	15,207.17	215.88	0.00	81,799.75
16	2011-12 (End of 11th Plan)	131.28	104,862.65	6,244.32	21,971.57	1,178.17	0.00	134,387.99
17	2016-17 (End of 12th Plan)	143.64	137,588.31	9,181.74	22,855.31	2,277.02	0.00	172,046.03
18	2017-18	112.48	143,867.68	8,106.89	25,362.17	2,328.17	0.00	179,777.39
19	2018-19	270.04	184,250.36	5,334.32	19,545.09	3,673.92	0.00	213,073.73
20	2019-20	348.04	205,545.78	1,919.32	25,443.15	6,310.47	0.00	239,566.76
21	2020-21	339.12	193,142.60	2,504.19	21,683.55	7,157.94	0.00	224,827.40
22	2021-22	356.66	179,235.45	2104.51	20,801.17	6,812.98	0.00	209,310.76
23	2022-23	290.70	179831.20	2035.36	21086.63	8687.92	0.00	211,931.81
24	2023-24@	351.00	180500.00	2150.00	21500.00	10080.00	0.00	214,581.00

** Breakup Not Available

@ Estimated

**Electrical Energy Generated by Captive Power Plants Industries
Demand of 0.5 MW & above - Mode-wise
2023-24@**

Chart : 33



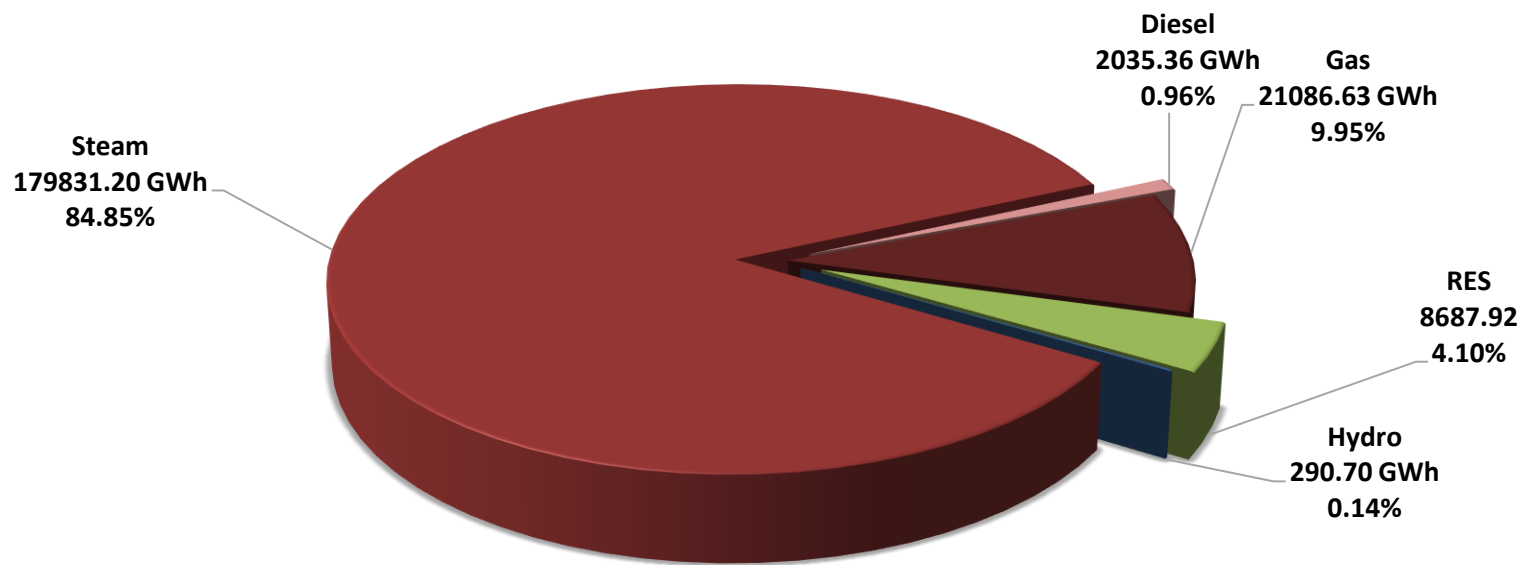
@ Estimated

Total = 214581 GWh

■ Hydro ■ Steam ■ Diesel ■ Gas ■ RES

**Electrical Energy Generated by Captive Power Plants Industries
Demand of 0.5 MW & above - Mode- wise
2022-23**

Chart : 33A

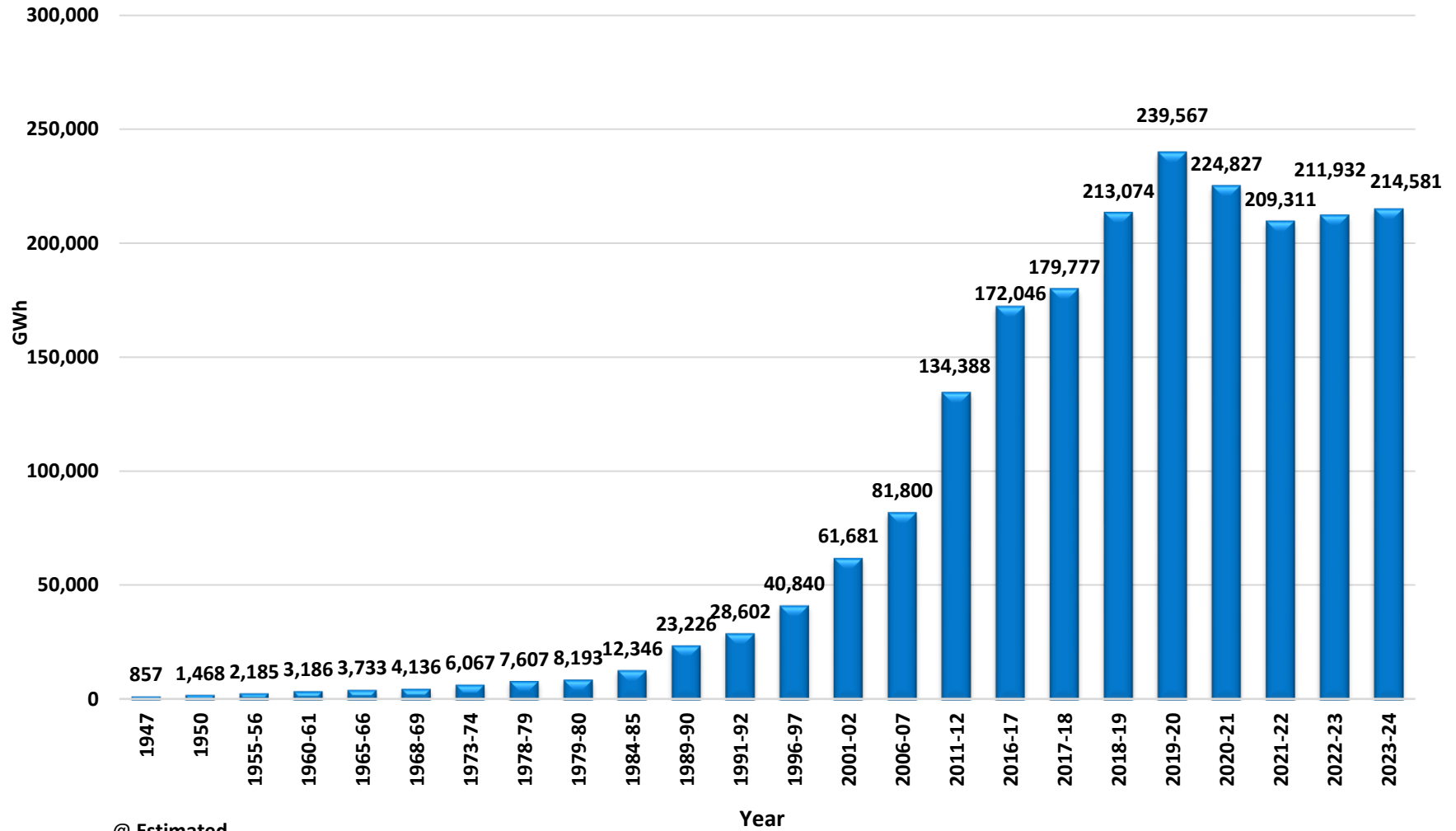


Total = 211931.81 GWh

Hydro Steam Diesel Gas RES

Energy Generated by Captive Power Plants Industries Demand of 0.5 MW & above

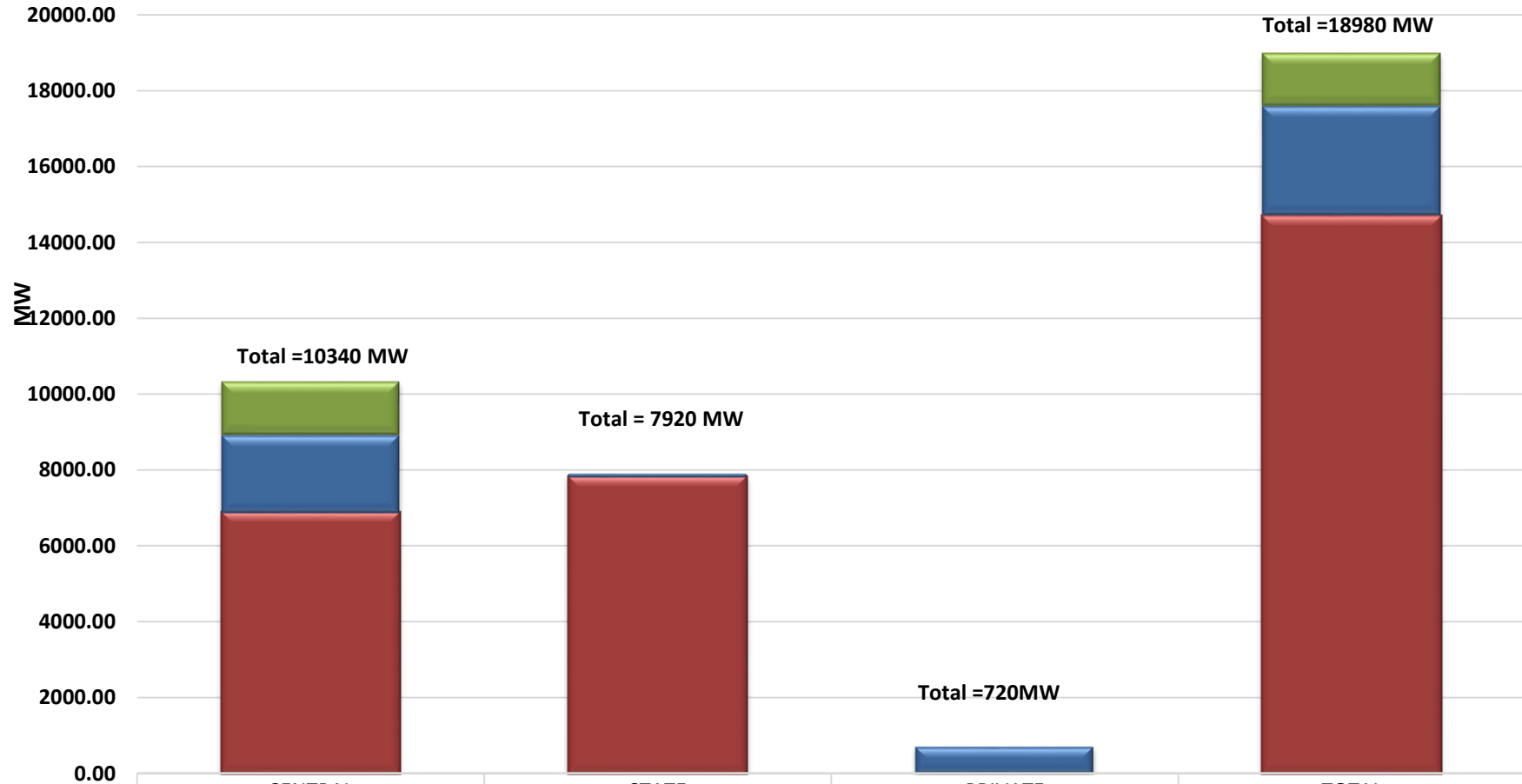
Chart : 34



@ Estimated

Capacity Addition Programme 2023-24

Chart : 35

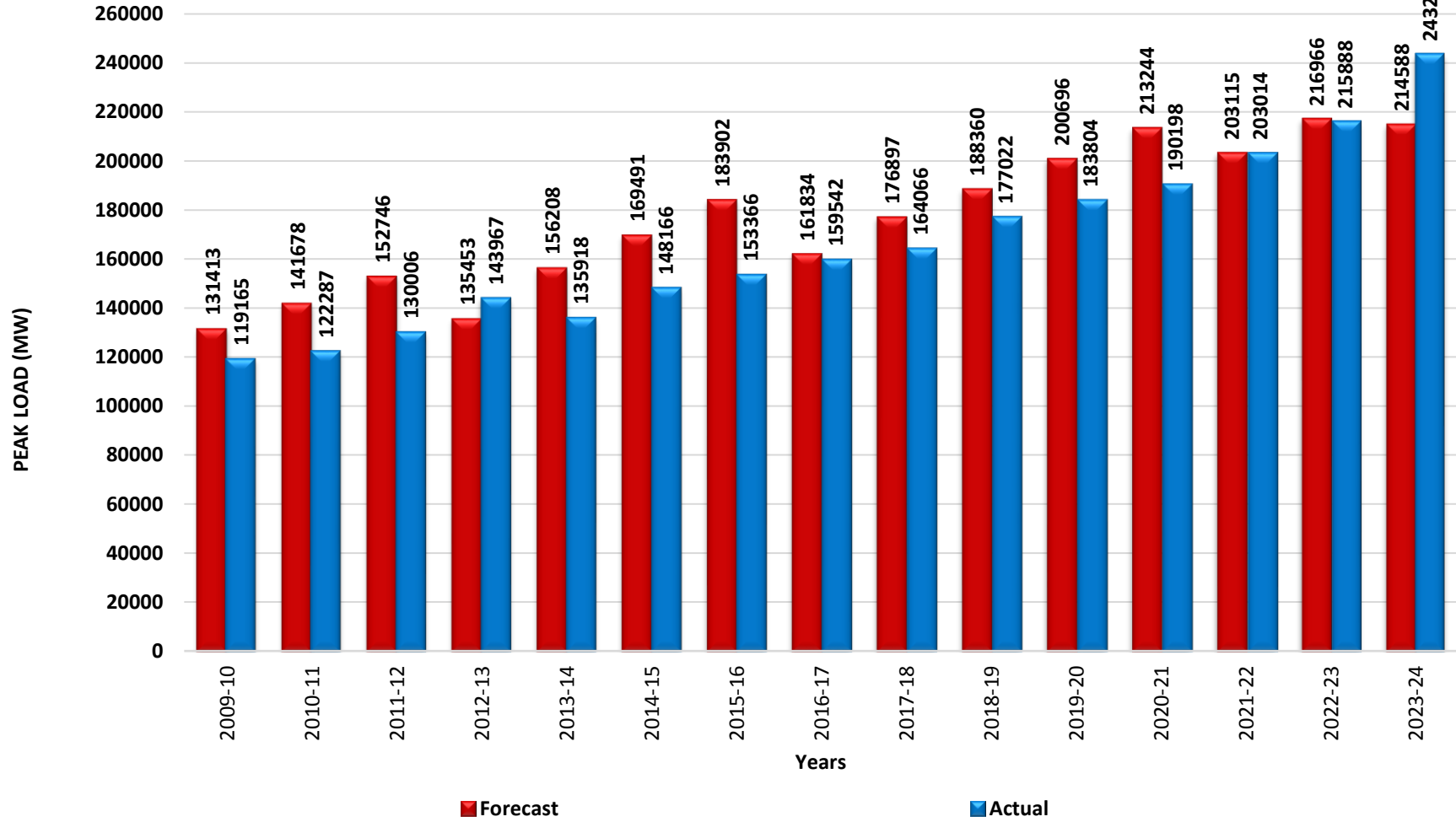


	CENTRAL	STATE	PRIVATE	TOTAL
NUCLEAR	1400.00	0.00	0.00	1400.00
HYDRO	2060.00	100.00	720.00	2880.00
THERMAL	6880.00	7820.00	0.00	14700.00

Forecast of All India Peak Electricity Demand (Utilities)

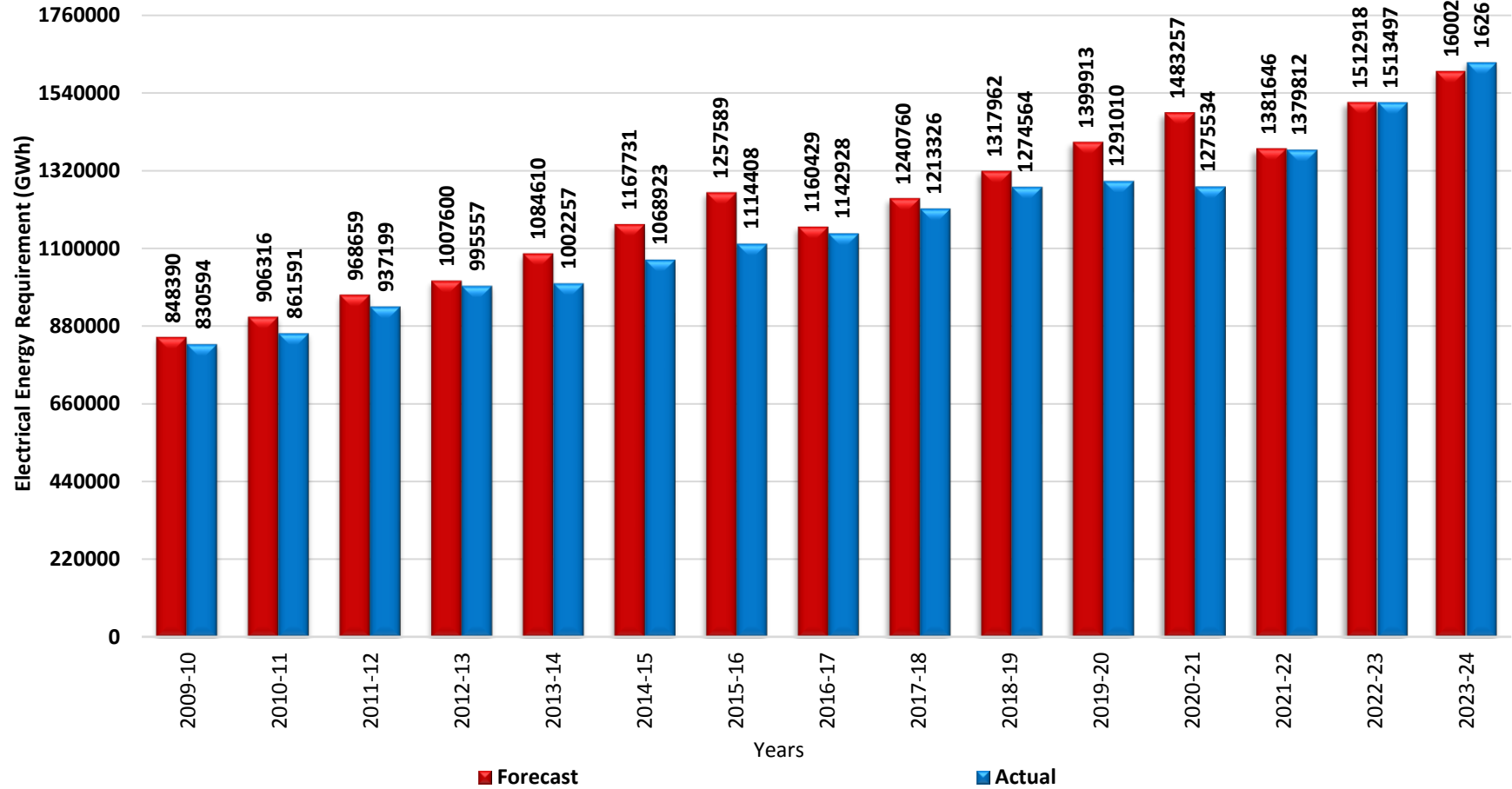
Chart : 36

As Per 20th Electric Power Survey in MW



Forecast of All India Energy Requirement (Utilities) As Per 20th Electric Power Survey in GWh

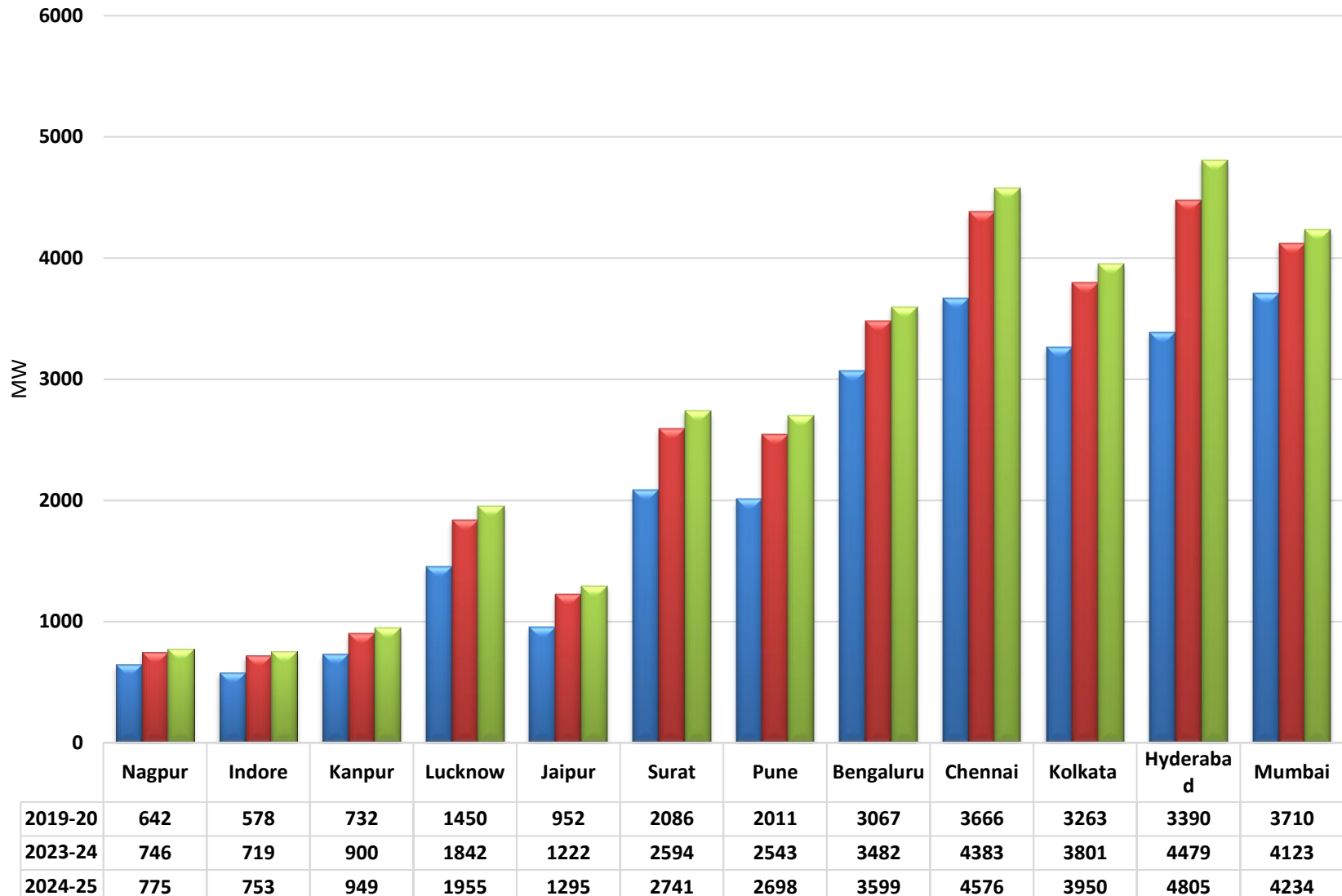
Chart : 37



19th Electric Power Survey of India (Volume - III)

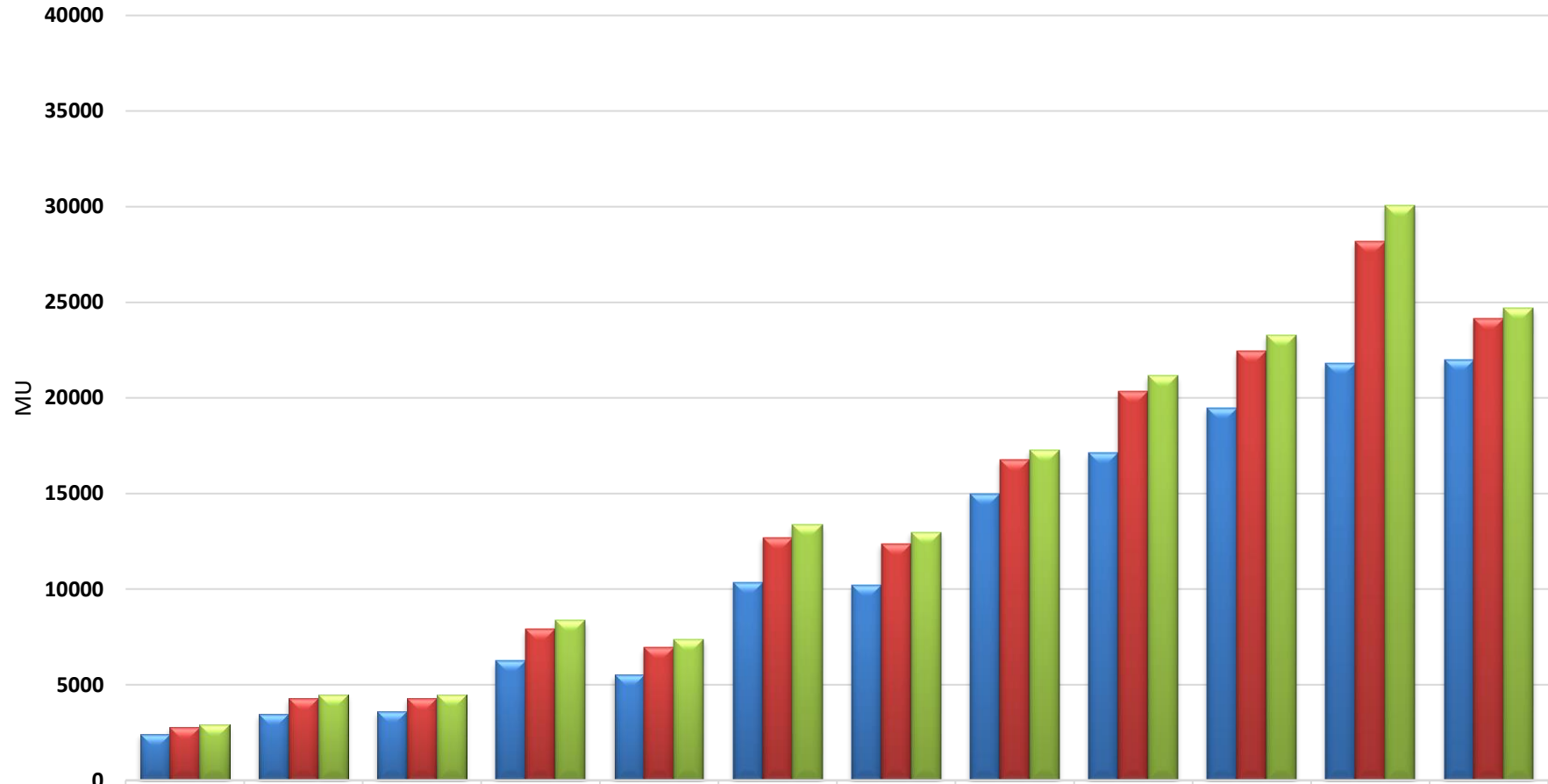
Chart :37A

Annual Electric Peak Load (in MW) of Mega Cities at Power Station Bus Bar For the year 2019-20, 2023-24 & 2024-25



**19th Electric Power Survey of India (Volume - III)
Electrical Energy Requirement (MU) - Mega Cities
(2019-20, 2023-24 & 2024-25)**

Chart : 37B

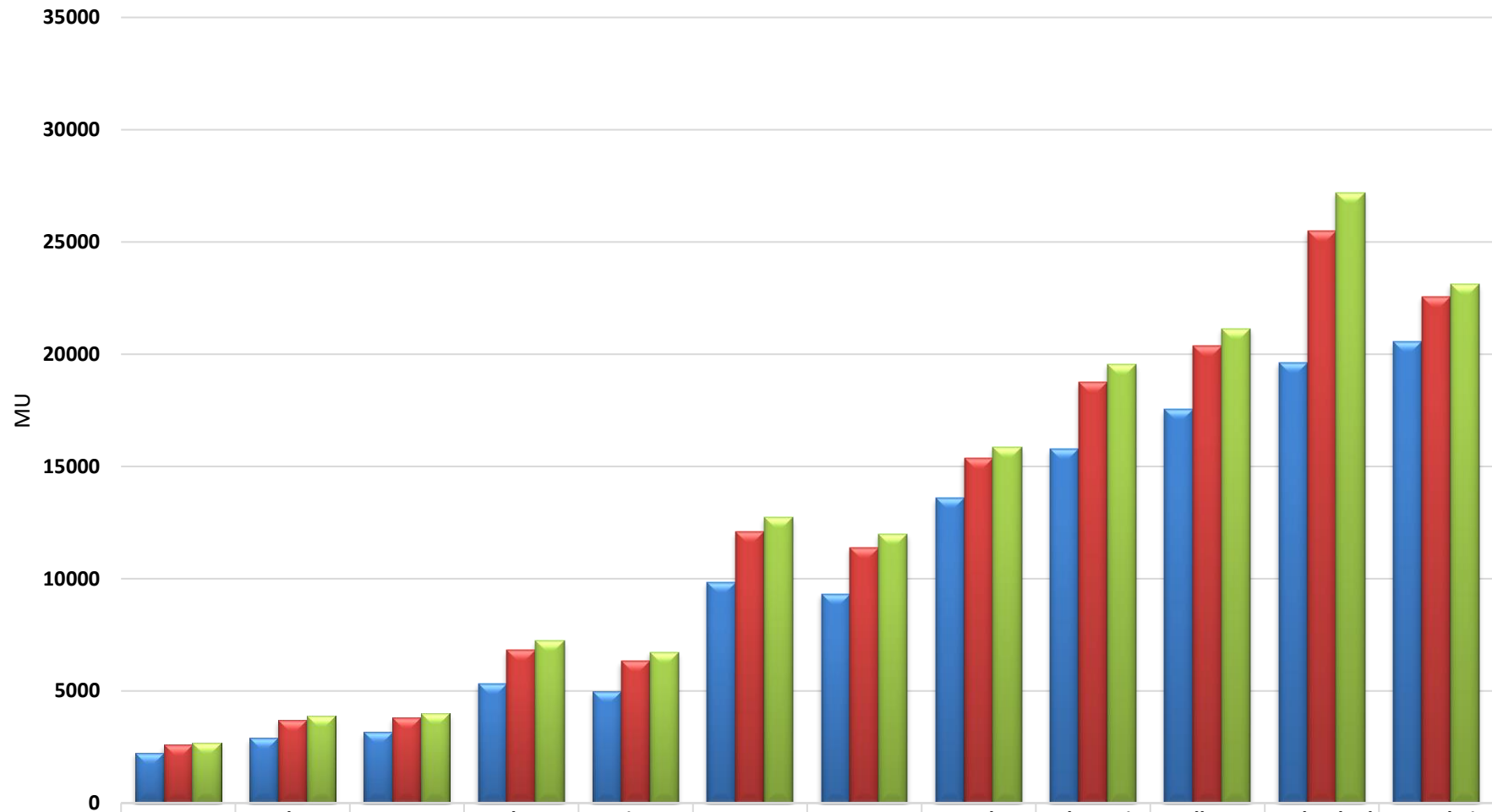


	Nagpur	Indore	Kanpur	Lucknow	Jaipur	Surat	Pune	Bengaluru	Chennai	Kolkata	Hyderabad	Mumbai
2019-20	2418	3445	3605	6257	5502	10354	10204	14983	17115	19450	21799	21977
2023-24	2792	4282	4274	7900	6958	12692	12368	16766	20313	22460	28173	24131
2024-25	2894	4486	4465	8371	7372	13362	12980	17267	21166	23284	30054	24709

Axis Title

19th Electric Power Survey of India (Volume - III)
Electrical Energy Consumption (MU Mega Cities
(2019-20, 2023-24 & 2024-25)

Chart : 37C



	Nagpur	Indore	Kanpur	Lucknow	Jaipur	Surat	Pune	Bengaluru	Chennai	Kolkata	Hyderabad	Mumbai
2019-20	2235	2894	3162	5318	4990	9845	9317	13599	15783	17549	19620	20540
2023-24	2592	3682	3799	6810	6339	12073	11391	15351	18756	20363	25469	22563
2024-25	2691	3880	3982	7241	6723	12711	11980	15844	19551	21136	27200	23106

Table No.8
All India Power Supply Position Energy-wise & Peak-wise (Utilities)
1985-86 to 2022-23

Year	Energy				Peak Demand			
	Requirement	Availability	Deficit	Deficit	Demand	Availability	Deficit	Deficit
	(GWh)	(GWh)	(GWh)	(%)	(MW)	(MW)	(MW)	(%)
1985-86	170,746	157,262	13,484	7.90	28,090	24,215	3,875	13.79
1986-87	192,356	174,276	18,080	9.40	30,850	26,924	3,926	12.73
1987-88	210,993	187,976	23,017	10.91	31,990	28,242	3,748	11.72
1988-89	223,194	205,909	17,285	7.74	36,245	31,713	4,532	12.50
1989-90	247,762	228,151	19,611	7.92	40,385	33,658	6,727	16.66
1990-91	267,632	246,560	21,072	7.87	44,005	37,171	6,834	15.53
1991-92	288,974	266,432	22,542	7.80	48,055	39,027	9,028	18.79
1992-93	305,266	279,824	25,442	8.33	52,805	41,984	10,821	20.49
1993-94	323,252	299,494	23,758	7.35	54,875	44,830	10,045	18.31
1994-95	352,260	327,281	24,979	7.09	57,530	48,066	9,464	16.45
1995-96	389,721	354,045	35,676	9.15	60,981	49,836	11,145	18.28
1996-97	413,490	365,900	47,590	11.51	63,853	52,376	11,477	17.97
1997-98	424,505	390,330	34,175	8.05	65,435	58,042	7,393	11.30
1998-99	446,584	420,235	26,349	5.90	67,905	58,445	9,460	13.93
1999-00	480,430	450,594	29,836	6.21	72,669	63,691	8,978	12.35
2000-01	507,216	467,409	39,807	7.85	74,872	65,628	9,244	12.35
2001-02	522,537	483,350	39,187	7.50	78,441	69,189	9,252	11.79
2002-03	545,674	497,589	48,085	8.81	81,492	71,547	9,945	12.20
2003-04	559,264	519,398	39,866	7.13	84,574	75,066	9,508	11.24

**Table No.8 (Contd.)
All India Power Supply Position Energy-wise & Peak-wise (Utilities)
1985-86 to 2022-23**

Year	Energy				Peak Demand			
	Requirement	Availability	Deficit	Deficit	Demand	Availability	Deficit	Deficit
	(GWh)	(GWh)	(GWh)	(%)	(MW)	(MW)	(MW)	(%)
2004-05	591,373	548,115	43,258	7.31	87,906	77,652	10,254	11.66
2005-06	631,757	578,819	52,938	8.38	93,255	81,792	11,463	12.29
2006-07	690,587	624,495	66,092	9.57	100,715	86,818	13,897	13.80
2007-08	739,343	666,007	73,336	9.92	108,866	90,793	18,073	16.60
2008-09	777,039	691,038	86,001	11.07	109,809	96,785	13,024	11.86
2009-10	830,594	746,644	83,950	10.11	119,166	104,009	15,157	12.72
2010-11	861,591	788,355	73,236	8.50	122,287	110,256	12,031	9.84
2011-12	937,199	857,886	79,313	8.46	130,006	116,191	13,815	10.63
2012-13	995,557	908,652	86,905	8.73	135,453	123,294	12,159	8.98
2013-14	1,002,257	959,829	42,428	4.23	135,918	129,815	6,103	4.49
2014-15	1,068,923	1,030,785	38,138	3.57	148,166	141,160	7,006	4.73
2015-16	1,114,408	1,090,850	23,558	2.11	153,366	148,463	4,903	3.20
2016-17	1,142,928	1,135,332	7,596	0.66	159,542	156,934	2,608	1.63
2017-18	1,213,326	1,204,697	8,629	0.71	164,066	160,752	3,314	2.02
2018-19	1,274,595	1,267,526	7,070	0.55	177,022	175,528	1,494	0.84
2019-20	1,291,010	1,284,444	6,566	0.51	183,804	182,533	1,271	0.69
2020-21	1,275,534	1,270,663	4,871	0.38	190,198	189,395	802	0.42
2021-22	1,379,812	1,374,024	5,787	0.42	203,014	200,539	2,475	1.22
2022-23	1,513,497	1,505,914	7,583	0.50	215,888	207,231	8,657	4.01
2023-24	1,626,132	1,622,020	4,112	0.30	243,271	239,931	3,340	1.40

All India Peak and Energy Deficit (Utilities) 1985-86 to 2023-24

Chart : 38

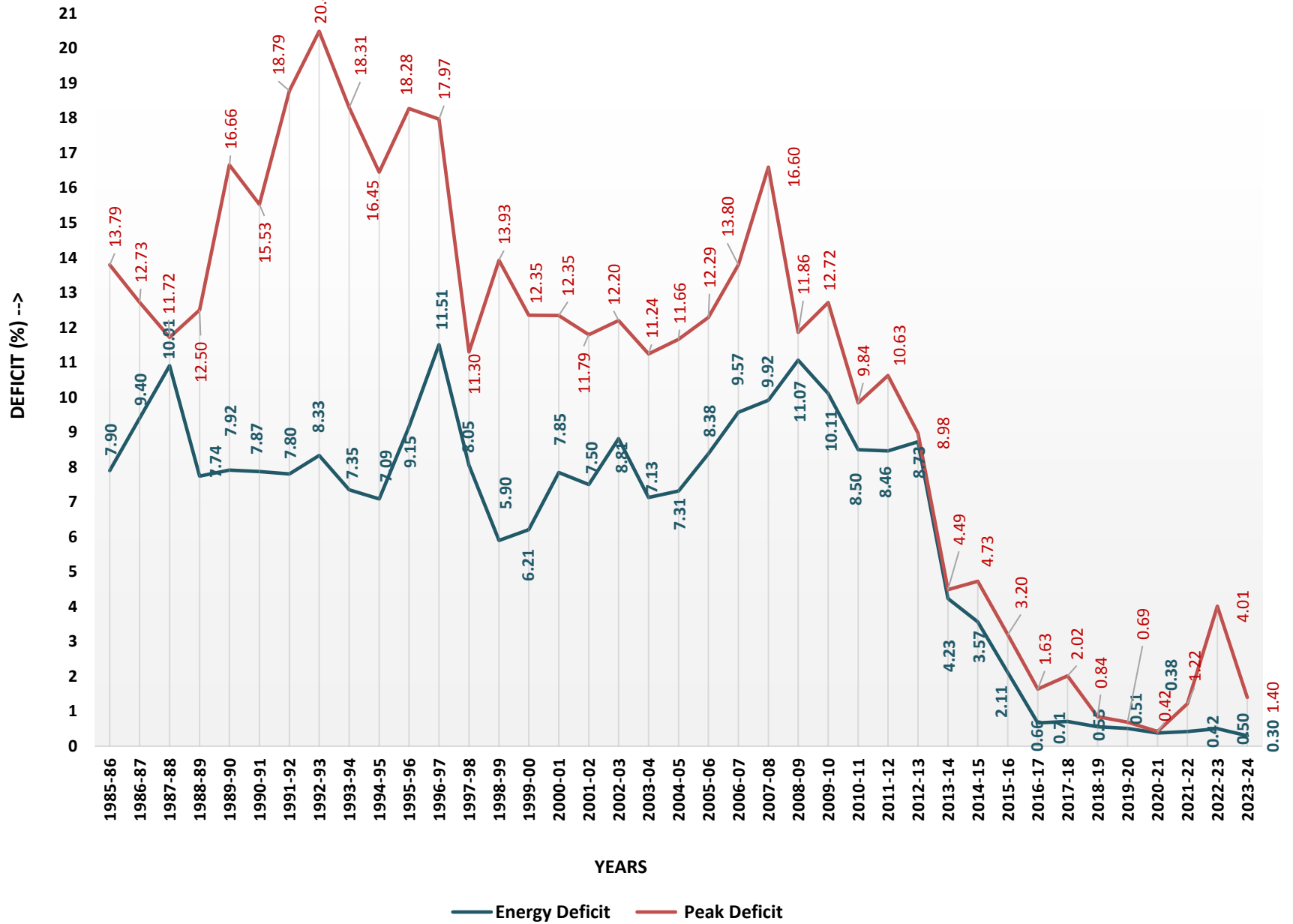


Table 8A
Electrical Energy Requirement (MU) & Peak Electricity Demand (MW) - Region-Wise
projections for the Year 2023-24 and 2024-25 As Per 20th EPS (Volume-I)

Region/Year	Electrical Energy Requirement (MU)		Peak Electricity Demand (MW)	
	2024-25	2025-26	2024-25	2025-26
Northern	528,394	559,218	87,457	92476
Western	528,152	560,416	79,137	83986
Southern	410,587	434,511	71,362	75861
Eastern	205,240	218,961	32,544	34857
North East	22,261	23,521	4,284	4556
All India Total	1,694,634	1,796,627	244,565	260,118

NOTE : EPS - Electric Power Survey

Table 8B
Forecast of Electrical Energy Consumption - Category-Wise
(2024-25 & 2025-26)
As Per 20th EPS (Volume-I)

Category	GWh	
	Year	Year
	2024-25	2025-26
Domestic	431,417	459,565
Commercial	122,022	128,855
Irrigation	291,750	304,367
Industries	397,141	432,956
Others	173,657	183,414
Total	1,415,987	1,509,157

Table 8C
Forecast of Electrical Energy Requirement (in MU) - NCR
(2024-25 & 2025-26)
As Per 20th EPS (Volume-II)

		GWh
NCR Sub Region	2024-25	2025-26
Delhi	39,000	40,771
Haryana	47,830	51,605
Rajasthan	13,407	14,757
Uttar Pradesh	36,992	39,922
NCR - Total	137,666	147,559

Chart : 39

Forecast of Electrical Energy Requirement (in MU) of NCR (2024-25 & 2025-26)

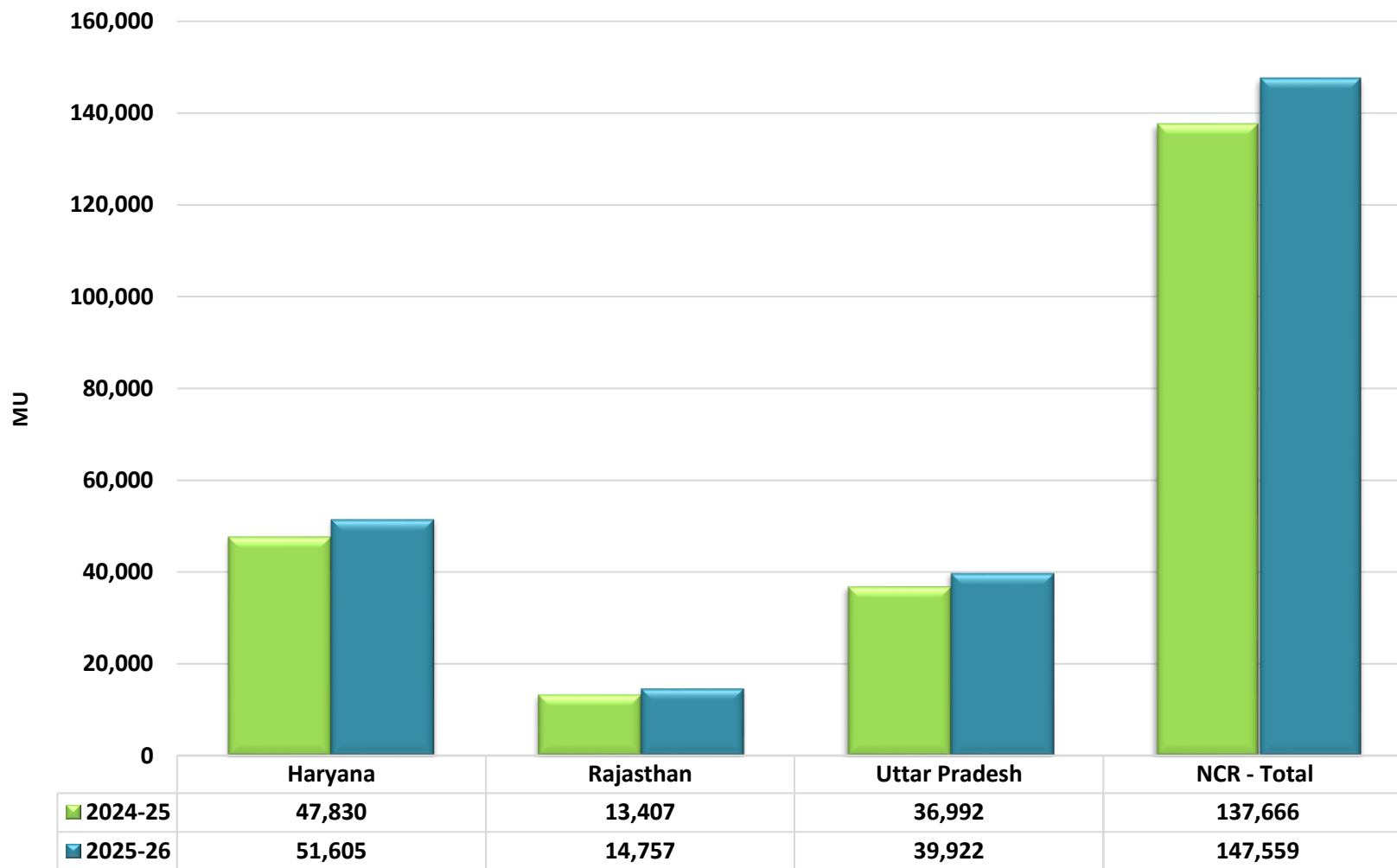
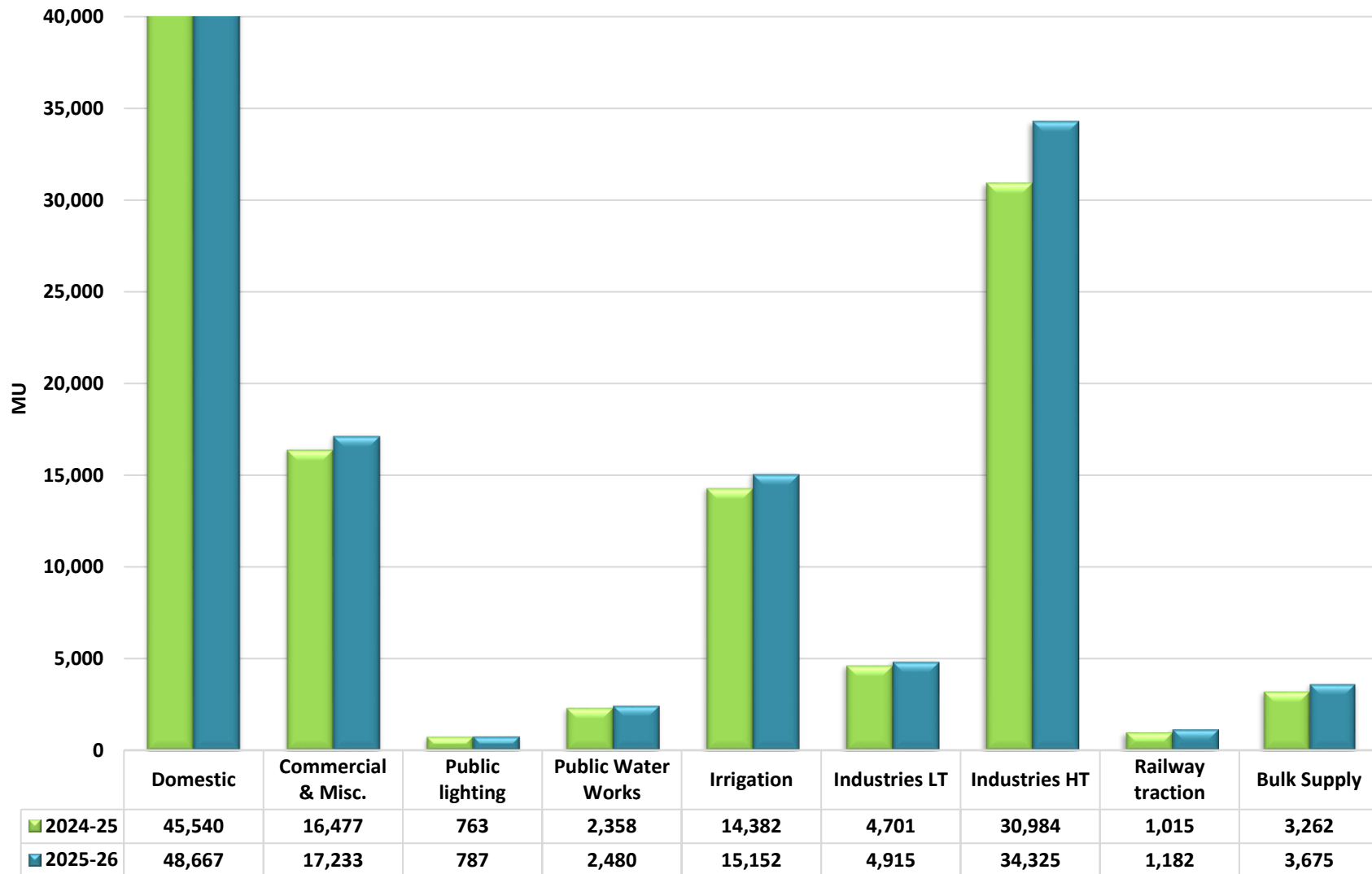


Table 8D
Forecast of Electrical Energy Consumption (in MU) of NCR
(2024-25 & 2025-26)
As Per 20th EPS (Volume-II)

Consumption Category	2024-25	2025-26
Domestic	45,540	48,667
Commercial & Misc.	16,477	17,233
Public lighting	763	787
Public Water Works	2,358	2,480
Irrigation	14,382	15,152
Industries LT	4,701	4,915
Industries HT	30,984	34,325
Railway traction	1,015	1,182
Bulk Supply	3,262	3,675
Total (Energy Consumption)	119,481	128,416

GWh

Forecast of Electrical Energy Consumption (in MU) of NCR (2023-24 & 2024-25)



MAP OF INDIA

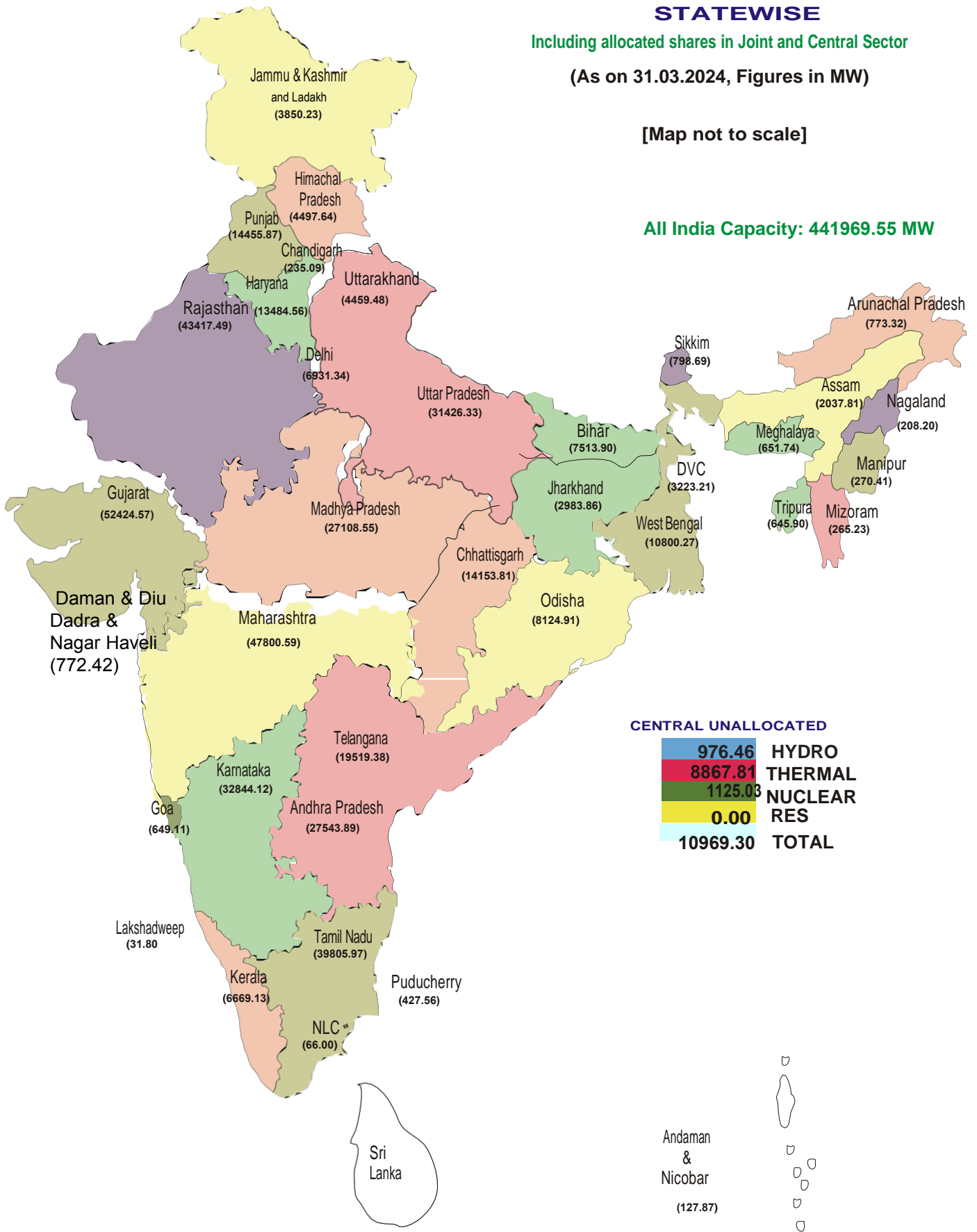
SHOWING INSTALLED GENERATING CAPACITY STATEWISE

Including allocated shares in Joint and Central Sector

(As on 31.03.2024, Figures in MW)

[Map not to scale]

All India Capacity: 441969.55 MW



MAP OF INDIA

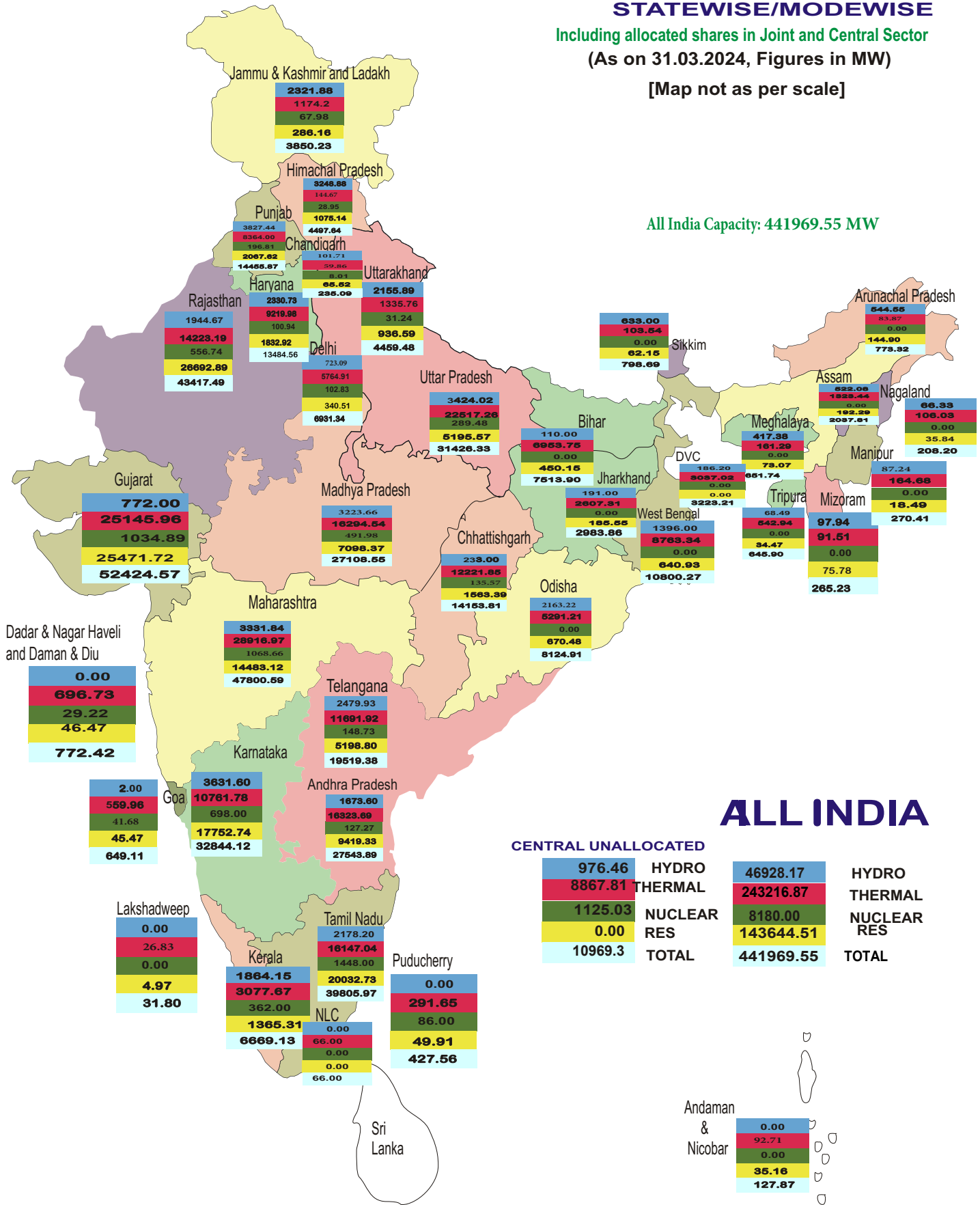
SHOWING

INSTALLED GENERATING CAPACITY STATEWISE/MODEWISE

Including allocated shares in Joint and Central Sector
(As on 31.03.2024, Figures in MW)

[Map not as per scale]

All India Capacity: 441969.55 MW



ALL INDIA

CENTRAL UNALLOCATED

976.46	HYDRO	46928.17	HYDRO
8867.81	THERMAL	243216.87	THERMAL
1125.03	NUCLEAR	8180.00	NUCLEAR
0.00	RES	143644.51	RES
10969.3	TOTAL	441969.55	TOTAL