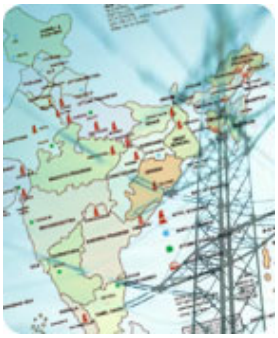
Power Sector at a Glance "ALL INDIA"

Source: OM SECTION

1.Total Installed Capacity (As on 31.12.2023)- Source : Central Electricity Authority (CEA)

- **Installed Generation Capacity (Sector wise) as on 31.12.2023 :**

Sector	Installed Generation Capacity (MW)	% Share in Total
Central Sector	1,02,275	23.9%
State Sector	1,06,333	24.8%
Private Sector	2,19,691	51.3%
Total Installed Capacity	**4,28,299**	**100.0%**



- **Installed Generation Capacity (Fuel wise) as on 31.12.2023 :**

	Category		Installed Generation Capacity (MW)	% Share in Total
Fossil Fuel	Coal		2,07,776	48.5%
	Lignite		6,620	1.5%
	Gas		25,038	5.8%
	Diesel		589	0.1%
	Total Fossil Fuel :		**2,40,023**	**56.0%**
Non-Fossil Fuel	RES (Incl. Hydro)		1,80,796	42.2%
	Hydro	46,910		11.0%
	Wind, Solar & Other RE	1,33,886		31.3%
	Wind	*44,736*		*10.4%*
	Solar	*73,318*		*17.1%*
	BM Power/Cogen.	*10,262*		*2.4%*
	Waste to Energy	*583*		*0.1%*
	Small Hydro Power	*4,987*		*1.2%*
	Nuclear		7,480	1.7%
	Total Non-Fossil Fuel :		**1,88,276**	**44.0%**
	Total Installed Capacity (Fossil Fuel & Non-Fossil Fuel)		**4,28,299**	**100%**

Policy Initiatives / Decision Taken

Electricity Act 2003 has been enacted and came into force from 15.06.2003. The objective is to introduce competition, protect consumer's interests and provide power for all. The Act provides for National Electricity Policy, Rural Electrification, Open access in transmission, phased open access in distribution, mandatory SERCs, license free generation and distribution, power trading, mandatory metering and stringent penalties for theft of electricity.

It is a comprehensive legislation replacing Electricity Act 1910, Electricity Supply Act 1948 and Electricity Regulatory Commission Act 1998.The Electricity Act, 2003 has been amended on two occasions by the Electricity (Amendment) Act, 2003 and the Electricity (Amendment) Act, 2007. The aim is to push the sector onto a trajectory of sound commercial growth and to enable the States and the Centre to move in harmony and coordination.

Performance of Generation from all Sources

1.0 Performance of Electricity Generation (Including RE)

1.1 The electricity generation target (Including RE) for the year 2023-24 has been fixed as 1750 Billion Unit (BU). i.e. growth of around 7.2% over actual generation of 1624.158 BU for the previous year (2022-23). The generation during 2022-23 was 1624.158 BU as compared to 1491.859 BU generated during 2021-22, representing a growth of about 8.87%.

1.2 **Total Generation and growth over previous year in the country during 2009-10 to 2023-24 :-**

Year	Total Generation (Including Renewable Sources) (BU)	% Growth
2009-10	808.498	7.56
2010-11	850.387	5.59
2011-12	928.113	9.14
2012-13	969.506	4.46
2013-14	1,020.200	5.23
2014-15	1,110.392	8.84
2015-16	1,173.603	5.69
2016-17	1,241.689	5.80
2017-18	1,308.146	5.35
2018-19	1,376.095	5.19
2019-20	1,389.102	0.95
2020-21	1,381.855	-0.52
2021-22	1,491.859	7.96
2022-23	1,624.465	8.89
2023-24 *	1,308.098	6.90

** Upto December, 2023 (Provisional), Source: CEA*

1.3 The electricity generation target for the year 2023-24 was fixed at 1750 BU comprising of 1324.110 BU Thermal; 156.700 BU Hydro; 46.190 Nuclear; 8 BU Import from Bhutan and 215 BU RES (Excl. Large Hydro).

2.0 Plant Load Factor (PLF):

2.1 **The PLF in the country (Coal & Lignite based) from 2009-10 to 2023-24 is as under:**

Year	All India PLF (%)	Sector-wise PLF (%)		
		Central	State	Private
2009-10	77.5	85.5	70.9	83.9
2010-11	75.1	85.1	66.7	80.7
2011-12	73.3	82.1	68.0	69.5
2012-13	69.9	79.2	65.6	64.1
2013-14	65.60	76.10	59.10	62.10
2014-15	64.46	73.96	59.83	60.58
2015-16	62.29	72.52	55.41	60.49
2016-17	59.88	71.98	54.35	55.73
2017-18	60.72	72.38	56.90	55.34
2018-19	61.07	72.64	57.81	55.24
2019-20	55.99	64.21	50.24	54.64
2020-21	54.51	63.40	46.23	54.66
2021-22	58.87	69.71	54.50	53.62
2022-23	64.15	74.67	61.86	56.64
2023-24 *	68.06	74.30	63.41	66.63

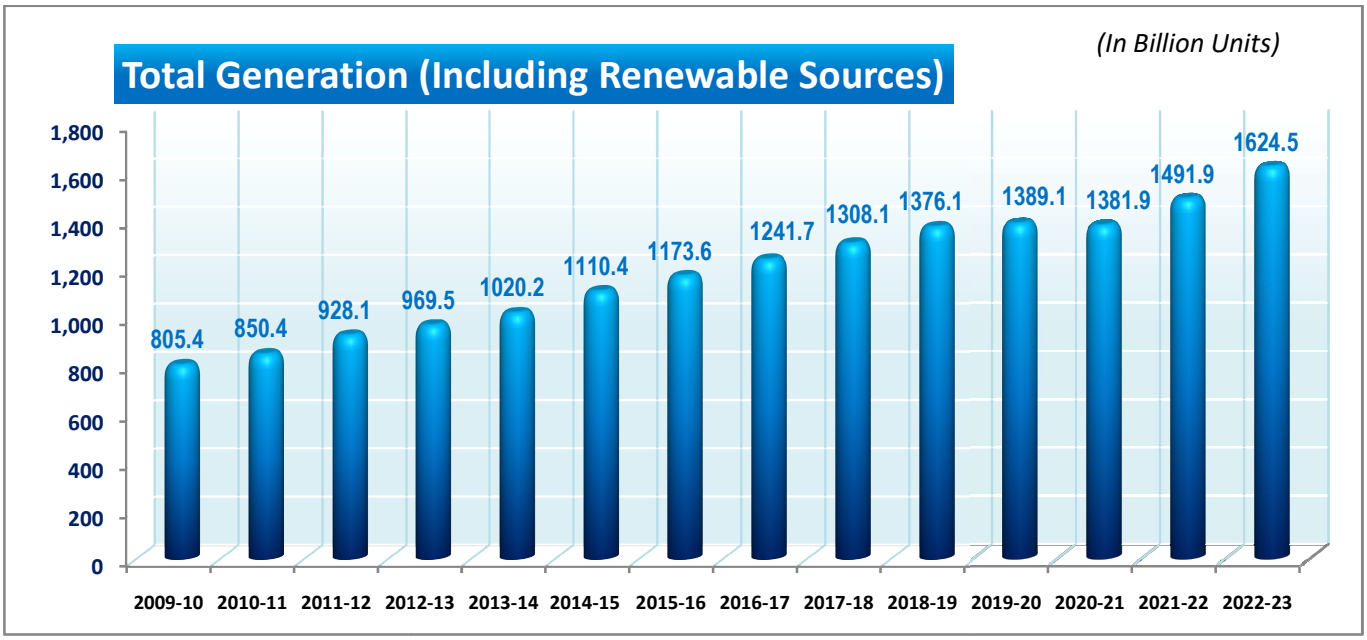
** Upto December, 2023 (Provisional), Source : CEA*

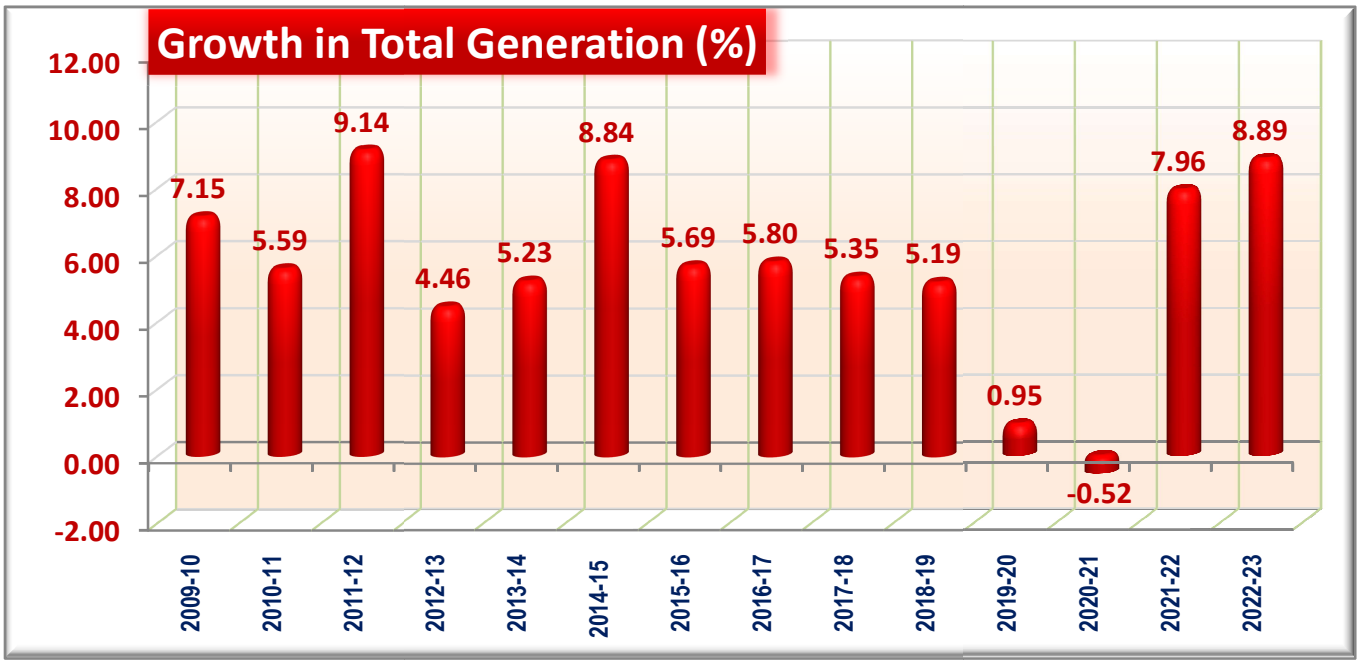
3.0 Power Supply Position

The power supply position in the country during 2009-10 to 2023-24 :

Year	Energy				Peak			
	Requirement	Availability	Surplus (+) / Deficits (-)		Peak Demand	Maximum Demand Met	Surplus (+) / Deficits (-)	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2009-10	8,30,594	7,46,644	-83,950	-10.1	1,19,166	1,04,009	-15,157	-12.7
2010-11	8,61,591	7,88,355	-73,236	-8.5	1,22,287	1,10,256	-12,031	-9.8
2011-12	9,37,199	8,57,886	-79,313	-8.5	1,30,006	1,16,191	-13,815	-10.6
2012-13	9,95,557	9,08,652	-86,905	-8.7	1,35,453	1,23,294	-12,159	-9.0
2013-14	10,02,257	9,59,829	-42,428	-4.2	1,35,918	1,29,815	-6,103	-4.5
2014-15	10,68,923	10,30,785	-38,138	-3.6	1,48,166	1,41,160	-7,006	-4.7
2015-16	11,14,408	10,90,850	-23,558	-2.1	1,53,366	1,48,463	-4,903	-3.2
2016-17	11,42,929	11,35,334	-7,595	-0.7	1,59,542	1,56,934	-2,608	-1.6
2017-18	12,13,326	12,04,697	-8,629	-0.7	1,64,066	1,60,752	-3,314	-2.0
2018-19	12,74,595	12,67,526	-7,070	-0.6	1,77,022	1,75,528	-1,494	-0.8
2019-20	12,91,010	12,84,444	-6,566	-0.5	1,83,804	1,82,533	-1,271	-0.7
2020-21	12,75,534	12,70,663	-4,871	-0.4	1,90,198	1,89,395	-802	-0.4
2021-22	13,79,812	13,74,024	-5,787	-0.4	2,03,014	2,00,539	-2,475	-1.2
2022-23	15,11,847	15,04,264	-7,583	-0.5	2,15,888	2,07,231	-8,657	-4.0
2023-24 *	12,24,291	12,21,152	-3,139	-0.3	2,43,271	2,39,931	-3,340	-1.4

** Upto December, 2023 (Provisional), Source : CEA*


Total Generation (Including Renewable Sources)
(In Billion Units)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
805.4
850.4
928.1
969.5
1020.2
1110.4
1173.6
1241.7
1308.1
1376.1
1389.1
1381.9
1491.9
1624.5
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


Growth in Total Generation (%)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
7.15
5.59
9.14
4.46
5.23
8.84
5.69
5.80
5.35
5.19
0.95
-0.52
7.96
8.89
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