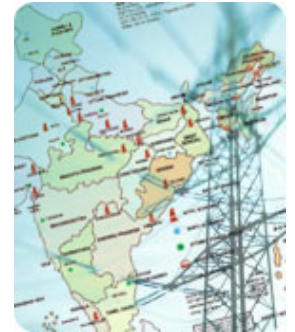


1. Total Installed Capacity (As on 30.06.2024)- Source : Central Electricity Authority (CEA)

➤ Installed Generation Capacity (Sectorwise) as on 30.06.2024 :

Sector	Installed Generation Capacity (MW)	% Share in Total
Central Sector	1,04,453	23.4%
State Sector	1,07,671	24.1%
Private Sector	2,34,065	52.5%
<b>Total Installed Capacity</b>	<b>4,46,190</b>	



➤ Installed Generation Capacity (Fuelwise) as on 30.06.2024 :

Category	Installed Generation Capacity (MW)	% Share in Total	
<b>Fossil Fuel</b>	Coal	2,10,970	47.3%
	Lignite	6,620	1.5%
	Gas	24,818	5.6%
	Diesel	589	0.1%
	<b>Total Fossil Fuel :</b>	<b>2,42,997</b>	<b>54.5%</b>
<b>Non-Fossil Fuel</b>	<b>RES (Incl. Hydro)</b>	<b>1,95,013</b>	<b>43.7%</b>
	Hydro	46,928	10.5%
	<b>Wind, Solar &amp; Other RE</b>	<b>1,48,085</b>	<b>33.2%</b>
	Wind	46,656	10.5%
	Solar	85,474	19.2%
	BM Power/Cogen.	10,355	2.3%
	Waste to Energy	593	0.1%
	Small Hydro Power	5,005	1.1%
Nuclear	8,180	1.8%	
<b>Total Non-Fossil Fuel :</b>	<b>2,03,193</b>	<b>45.5%</b>	
<b>Total Installed Capacity (Fossil Fuel &amp; Non-Fossil Fuel)</b>	<b>4,46,190</b>	<b>100%</b>	

## Overview

The Overall generation (Including generation from grid connected renewable sources) in the country has been increased from 1110.458 BU during 2014-15 to 1173.603 BU during the year 2015-16, 1241.689 BU during 2016-17, 1308.146 BU during 2017-18, 1376.095 BU during 2018-19, 1389.121 BU during 2019-20, 1381.855 BU during 2020-21, 1491.859 BU during 2021-22, 1624.465 BU during 2022-23 and 1739.091 BU during 2023-24. The performance of Category wise generation during the year 2023-24 was as follows:-

Thermal	Increased by	9.98%
Nuclear	Increased by	4.53%
Hydro	Reduced by	17.30%
Bhutan Import	Reduced by	30.05%
Solar, Wind & Other RES	Increased by	10.95%
<b>Overall Generation</b>	<b>Increased by</b>	<b>7.06%</b>



The annual growth in generation during recent years is as under:

Year	Growth in Fossil Fuel (Thermal) Generation (%)	Growth in Renewable Energy (RE) Generation (Including Large Hydro) (%)	Growth in Non-Fossil Fuel (RE + Nuclear) Generation (%)	Growth in Total Generation (%)
2011-12	6.6%	17.5%	18.30%	9.14%
2012-13	7.3%	-5.9%	-4.78%	4.46%
2013-14	4.2%	10.0%	9.05%	5.23%
2014-15	10.8%	1.3%	1.91%	8.84%
2015-16	7.5%	-1.8%	-0.97%	5.69%
2016-17	5.3%	8.9%	7.68%	5.80%
2017-18	4.3%	11.1%	9.55%	5.35%
2018-19	3.4%	14.3%	12.09%	5.19%
2019-20	-2.7%	12.7%	13.99%	0.95%
2020-21	-1.0%	2.1%	0.86%	-0.52%
2021-22	7.96%	7.74%	7.96%	7.96%
2022-23	8.21%	12.84%	10.90%	8.89%
2023-24	9.98%	-2.09%	-1.37%	7.06%
2024-25 *	12.03%	3.49%	5.85%	10.54%

\* Provisional (Upto June, 2024)

## 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 2024-25 has been fixed as 1900 Billion Unit (BU). i.e. growth of around 9.3% over actual generation of 1738.828 BU for the previous year (2023-24). The generation during 2023-24 was 1738.828 BU as compared to 1624.465 BU generated during 2022-23, representing a growth of about 7.04%.

### 1.2 Total Generation and growth over previous year in the country during 2009-10 to 2024-25 :-

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	1,739.091	7.06
2024-25 *	481.001	10.54

\* Upto June, 2024 (Provisional), Source : CEA

1.3 The electricity generation target for the year 2024-25 was fixed at 1900 BU comprising of 1444.943 BU Thermal; 147.709 BU Hydro; 55.348 Nuclear; 8 BU Import from Bhutan and 244 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 2024-25 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	69.07	75.09	64.70	67.61
2024-25 *	75.69	78.26	71.80	77.05

\* Upto June, 2024 (Provisional), Source : CEA

## 3.0 Power Supply Position

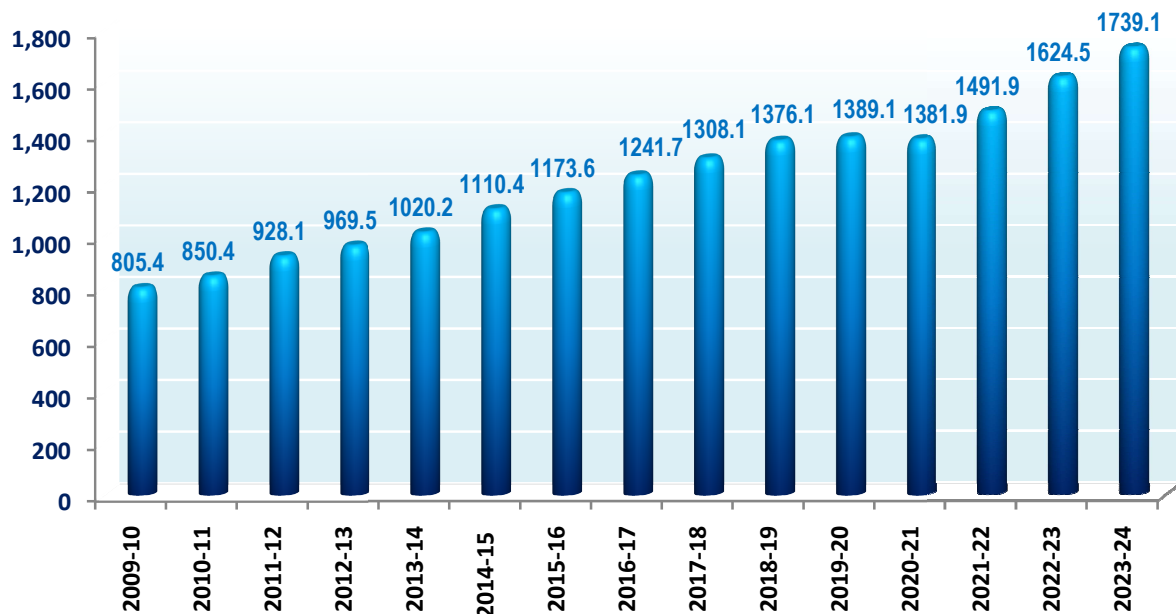
The power supply position in the country during 2009-10 to 2024-25 :

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	15,13,497	15,05,914	-7,583	-0.5	2,15,888	2,07,231	-8,657	-4.0
2023-24	16,26,132	16,22,020	-4,112	-0.3	2,43,271	2,39,931	-3,340	-1.4
2024-25 *	4,51,746	4,51,172	-574	-0.1	2,49,856	2,49,854	-2	-0.001

\* Upto June, 2024 (Provisional), Source : CEA

### Total Generation (Including Renewable Sources)

(In Billion Units)



### Growth in Total Generation (%)

