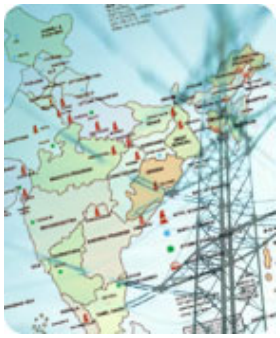
## Power Sector at a Glance "ALL INDIA"

**As on 13-09-2023**
**Source: OM SECTION**

### *1.Total Installed Capacity (As on 31.08.2023)-* Source : Central Electricity Authority (CEA)

- **Installed Generation Capacity (Sectorwise) as on 31.08.2023 :**

| Sector | Installed Generation Capacity (MW) | % Share in Total |
|---|---|---|
| Central Sector | 1,01,415 | 23.9% |
| State Sector | 1,05,749 | 24.9% |
| Private Sector | 2,17,124 | 51.2% |
| **Total Installed Capacity** | **4,24,288** | |



- **Installed Generation Capacity (Fuelwise) as on 31.08.2023 :**

| | Category | | Installed Generation Capacity (MW) | % Share in Total |
|---|---|---|---|---|
| Fossil Fuel | Coal | | 2,06,195 | 48.6% |
| | Lignite | | 6,620 | 1.6% |
| | Gas | | 25,038 | 5.9% |
| | Diesel | | 589 | 0.1% |
| | **Total Fossil Fuel :** | | **2,38,443** | **56.2%** |
| Non-Fossil Fuel | RES (Incl. Hydro) | | 1,78,365 | 42.0% |
| | Hydro | 46,850 | | 11.0% |
| | Wind, Solar & Other RE | 1,31,515 | | 31.0% |
| | *Wind* | *44,090* | | *10.4%* |
| | *Solar* | *71,610* | | *16.9%* |
| | *BM Power/Cogen.* | *10,262* | | *2.4%* |
| | *Waste to Energy* | *570* | | *0.1%* |
| | *Small Hydro Power* | *4,983* | | *1.2%* |
| | Nuclear | | 7,480 | 1.8% |
| | **Total Non-Fossil Fuel :** | | **1,85,845** | **43.8%** |
| | **Total Installed Capacity** (Fossil Fuel & Non-Fossil Fuel) | | **4,24,288** | **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 * | 747.541 | 5.29 |

** Upto August, 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 * | 68.20 | 74.64 | 64.26 | 65.94 |

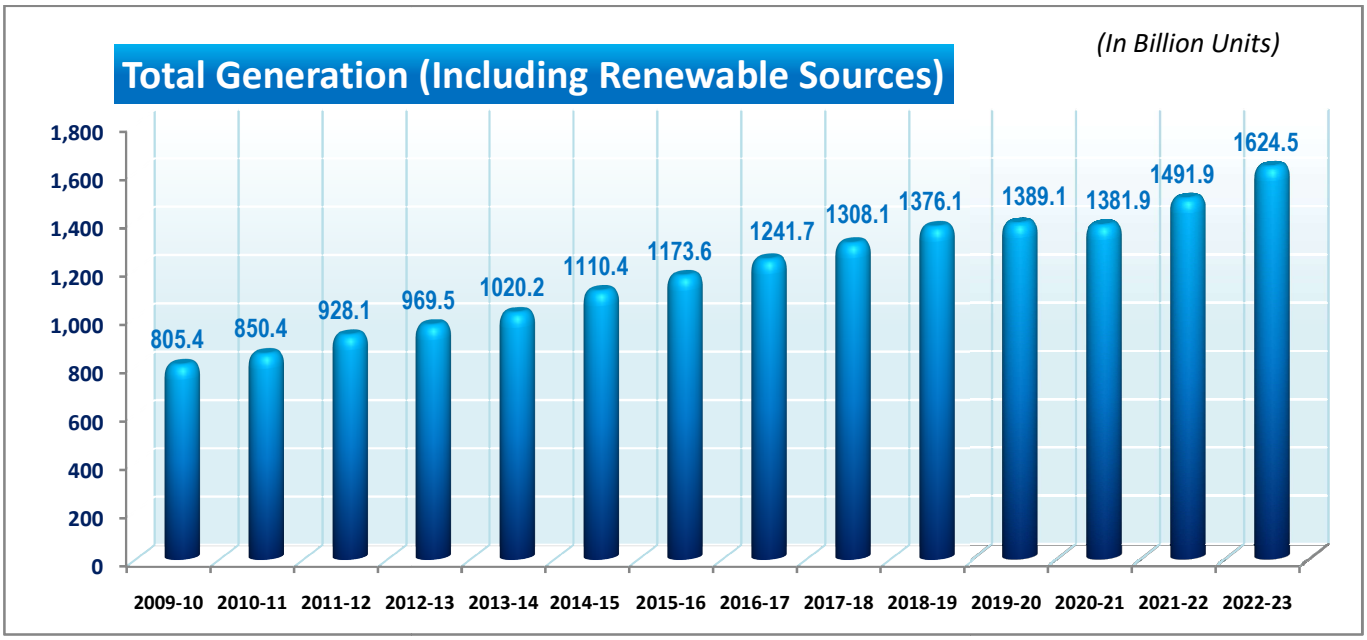
** Upto August, 2023 (Provisional), Source : CEA*

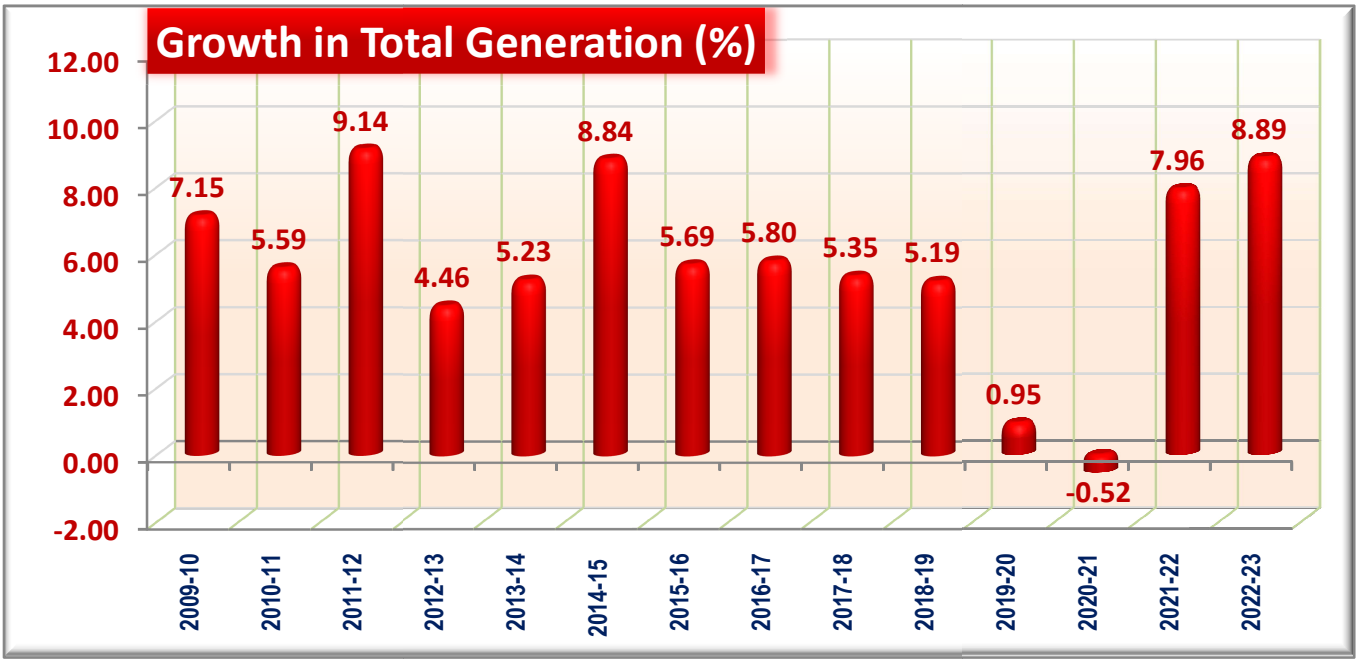
## 3.0 Power Supply Position

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 * | 7,06,602 | 7,04,741 | -1,861 | -0.3 | 2,38,191 | 2,36,598 | -1,593 | -0.7 |

** Upto August, 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