



**REPORT ON FLY ASH GENERATION AT COAL / LIGNITE
BASED THERMAL POWER STATIONS AND IT'S
UTILIZATION IN THE COUNTRY FOR THE 1ST HALF OF
THE YEAR 2022 – 2023**

(April 2022 to September 2022)



**CENTRAL ELECTRICITY AUTHORITY
NEW DELHI**

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CENTRAL ELECTRICITY AUTHORITY
CIVIL DESIGN DIVISION

FLY ASH GENERATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS AND ITS UTILIZATION IN THE COUNTRY FOR THE 1ST HALF OF THE YEAR 2022-23 (PERIOD: APRIL 2022 TO SEPTEMBER 2022)

1.0 BACKGROUND

Coal / Lignite based Thermal Power Generation has been the backbone of Power Capacity Addition in the Country. Indian Coal is of Low Grade with Ash Content of the order of 24 - 63 % in comparison to Imported Coal which has Low Ash Content of the order of 3-20 %. Large Quantity of Ash is, thus being generated at Coal / Lignite based Thermal Power Stations in the Country, which not only requires Large Area of precious Land for its disposal but is also one of the sources of Pollution of both Air and Water.

Central Electricity Authority (CEA) has been monitoring since 1996-97 the Ash Generation and its Utilization in the Country at Coal / Lignite based Thermal Power Stations. Data on ash Generation and Utilization including Modes of Utilization is obtained from Thermal Power Stations on Half Yearly as well as Yearly Basis. The Data thus obtained is analyzed and a Report bringing out the Status of Ash Generation and its Utilization in the Country is prepared. The said report is forwarded to the Ministry of Power, the Ministry of Science and Technology and the Ministry of Environment, Forests and Climate Change (MoEF & CC). It is also uploaded on the web site of CEA for bringing out the information in the Public Domain so that Users of Ash have access to the information on the availability of Ash at various Thermal Power Stations (TPSs) in the Country.

1.1 LATEST MOEF & CC NOTIFICATION ON UTILIZATION OF FLY ASH :

To reduce the requirement of Land for Disposal of Ash in Ash ponds and to address the problem of Pollution caused by ash, Ministry of Environment, Forests and Climate Change has issued various Notifications on ash utilization. First Notification was issued on 14th September, 1999 which was subsequently amended in 2003, 2009 and 2016 vide Notifications dated 27th August, 2003, 3rd November, 2009 and 25th January, 2016 respectively. In 2021 MoEF & CC issued a new Notification dated 31.12.2021 suppressing

all the previous Notifications. Also, on 30.12.2022 an amendment Notification has also been issued by MoEF & CC.

The main provisions regarding Fly Ash Utilization in the MoEF & CC Notification dated 31st December, 2021 and its First Amendment dated 30th December, 2022 are as follows:

Para A: Responsibilities of thermal power plants to dispose fly ash & bottom ash:

- Every Coal or Lignite based thermal power plant (including captive or co-generating stations or both) shall be primarily responsible to ensure 100 per cent utilization of (fly ash, and bottom ash) generated by it in an eco-friendly manner.
- The ash generated from coal or lignite based thermal power plants shall be utilized only for the following eco-friendly purposes, namely:
 - Fly ash based products viz bricks, tiles, fibre cement sheets, pipes, boards, panels;
 - Cement manufacturing, ready mix concrete;
 - Construction of road and fly over embankment, Ash and Geo-polymer based construction material;
 - Construction of dam;
 - Filling up of low lying area;
 - Manufacturing of sintered or cold bonded ash aggregate;
 - Agriculture in a controlled manner based on soil testing;
 - Construction of shoreline protection structures in coastal districts
 - Export of ash to other countries;
 - Any other eco-friendly purpose as notified from time to time.
- Every coal or lignite based thermal power plant shall be responsible to utilise 100 per cent ash (fly ash and Bottom ash) generated during that year, however, in no case shall utilisation fall below 80 per cent in any Year, and the thermal power plant shall achieve average ash utilisation of 100 per cent in a three years cycle:

Provided that the three years cycle applicable for the first time is extendable by one year for the thermal power plants where ash utilisation is in the range of 60-80 per cent, and two years where ash utilisation is below 60 per cent and for the purpose of calculation of percentage of ash utilisation, the Percentage quantity of utilisation in the year 2021-2022 shall be taken into account as per the table below:

Utilisation percentages of thermal Power plants	First compliance Cycle to meet 100 percent utilisation	Second compliance cycle onwards, to meet 100 percent utilisation
>80 per cent	3 years	3 years
60-80 per cent	4 years	3 years
<60 per cent	5 years	3 years

Provided further that the minimum utilisation percentage of 80 per cent shall not be applicable to the first year and first two years of the first compliance cycle for the thermal power plants under the utilization category of 60-80 per cent and <60 per cent, respectively.

Provided also that 20 percent of ash generated in the final year of compliance cycle may be carried forward to the next cycle which shall be utilised in the next three years cycle along with the ash generated during that cycle.

Provided also that new thermal power plants commissioned on or after the date of publication of this notification shall follow the first compliance cycle similar to the compliance cycle specified for thermal power plants having utilization less than 60 percent as specified in the table.

- The unutilised accumulated ash i.e. legacy ash, which is stored before 1st April, 2022 shall be utilised progressively by the thermal power plants in such a manner that the utilization of legacy ash shall be completed fully within ten years from the 1st April, 2022 and this will be over and above the utilisation targets prescribed for ash generation through current operations of that particular year :

Provided that the minimum quantity of legacy ash in percentages as mentioned below shall be utilised during the corresponding year and the minimum quantity of legacy

ash is to be calculated based on the annual ash generation as per installed capacity of thermal power plant.

Year from date of publication	1st	2nd	3rd -10th
Utilisation of legacy ash (in percentage of Annual ash)	At least 20 per cent	At least 35 per cent	At least 50 per cent

Provided further that the legacy ash utilisation shall not be required where ash pond or dyke has stabilised and the reclamation has taken place with greenbelt or plantation or solar power plant or wind power plant as per the guidelines issued by the Central Pollution Control Board (CPCB) as specified sub-para A-(6) Notification. Stabilization and reclamation of an ash pond or dyke including certification by State Pollution Control Board (SPCB) or Pollution Control Committee (PCC) shall be carried out within Three Years from 1st April, 2022. The ash remaining in all other ash ponds or dykes shall be utilised in progressive manner as per the above mentioned timelines.

- Provided that ash stored in all ash ponds or dykes other than operational ash pond or dyke designated for temporary storage of ash as specified in the sub para (6) shall constitute the Legacy ash and either to be reclaimed or stabilized or utilized.
- Every coal or lignite based thermal power plant (including captive or co-generating stations or both) shall provide real time data on daily basis of availability of ash with Thermal Power Plant (TPP), by providing link to Central Pollution Control Board's web portal or mobile phone App for the benefit of actual user(s).
- Statutory obligation of 100 per cent utilisation of ash shall be treated as a change in law, wherever applicable.

Para B - For the purpose of utilisation of ash, the subsequent sub-paras shall apply: -

- All agencies (Government, Semi-government and Private) engaged in construction activities such as road laying, road and flyover embankments, shoreline protection structures in coastal districts and dams within a radius of 300 kms from the lignite or coal based thermal power plants shall mandatorily utilise ash in these activities:

Provided that it is delivered at the project site free of cost and transportation cost is borne by such coal or lignite based thermal power plants.

Provided further that thermal power plant may charge for ash cost and transportation as per mutually agreed terms, in case thermal power plant is able to dispose the ash through other means and those agencies makes a request for it and the provisions of ash free of cost and free transportation shall be applicable, if thermal power plant serves a notice on the construction agency for the same.

Para C: Environmental compensation for non-compliance

- In the first two years of a three years cycle, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved at least 80 per cent ash (fly ash and bottom ash) utilisation, then such non-compliant thermal power plants shall be imposed with an environmental Compensation of Rs. 1000 per ton on unutilised ash during the end of financial year based on the annual reports submitted and if it is unable to utilise 100 per cent of ash in the third year of the three years cycle, it shall be liable to pay an environmental compensation of Rs. 1000 per ton on the unutilised quantity on which environmental compensation has not been imposed earlier:

Provided that the environmental compensation shall be estimated and imposed at the end of last year of the First compliance cycle as per the various utilisation categories as mentioned in sub-paragraph (4) of Para A.

- In case of legacy ash, if the coal or lignite based thermal power plant (including captive or co-generating stations or both) has not achieved utilisation equivalent to at least 20 per cent (for the first year), 35 per cent (for the second year), 50 per cent (for third to tenth year) of ash generated based on installed capacity, an environmental compensation of Rs. 1000 per ton of unutilised legacy ash during that financial year shall be imposed and if the utilization of legacy ash is not completed at the end of 10 years, an environmental compensation of Rs. 1000 per ton shall be imposed on the remaining unutilised quantity which has not been imposed earlier.

The report on fly ash generation and its utilization at coal / lignite based Thermal Power Stations provides the status of fly ash generation as well as utilization in the country. The report also contains conclusion and recommendation for increasing the present rate of utilization of the fly ash.

2.0 ASH GENERATION & UTILIZATION DURING THE 1ST HALF OF THE YEAR 2022-23

2.1 A Brief Summary :

Ash Generation & Utilization data for the 1st Half of the Year 2022-23 (April 2022 to September 2022) has been received from **175 (One Hundred Seventy Five)** Coal / Lignite based Thermal Power Stations of various Power Utilities in the Country.

Data thus received has been analyzed to derive conclusions on present status of Ash Generation and its Utilization in the Country as a whole. A brief Summary of Status is given in **Table - I** below:

TABLE-I
SUMMARY OF FLY ASH GENERATION AND UTILIZATION DURING
1ST HALF OF YEAR 2022-23

Description		1st Half of Year 2021-22	1st Half of Year 2022- 23
• No. of Thermal Power Stations from which data was received	:	197	175
• Installed capacity (MW)	:	211668.50	205623.00
• Coal consumed (Million tons)	:	376.22	401.15
• Fly Ash Generation (Million tons)	:	133.90	142.07
• Fly Ash Utilization (Million tons)	:	109.32	111.01
• Percentage Utilization of Fly Ash (%)	:	81.65	78.14
• Percentage Average Ash Content (%)	:	35.59	35.41

Power Stationwise ash Generation & its Utilization Status including modes of Utilization for the 1st Half of the Year 2022-23 for all the Thermal Power Stations is given in the statement at **Annexure - I**.

2.2 Power Utilitywise Status of Ash Generation & its Utilization during the 1st Half of the Year 2022-23

The status of ash Generation & utilization for the 1st Half of the Year 2022-23 for various Power Utilities in the Country has been assessed based on data received from Thermal Power Stations and the same is given in **Table – II:**

TABLE-II
POWER UTILITYWISE ASH GENERATION AND UTILIZATION FOR THE
1ST HALF OF YEAR 2022-23

Sl. No.	Name of Power Utility	No. of TPS	Installed Capacity (MW)	Fly Ash Generation (Million-tonnes)	Fly Ash Utilization (Million-tonnes)	Percentage Utilization %
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	A.P.GENCO (Andhra Pradesh)	2	3410.00	3.4837	3.6183	103.86
2	APPDCL	1	1600.00	0.7129	0.5476	76.81
3	ACB (INDIA) Ltd. (Chhattisgarh)	5	490.00	0.5261	0.5261	100.00
4	ADANI POWER (MUNDRA) LIMITED	1	4620.00	0.1984	0.1989	100.24
5	ADANI POWER (MAHARASHTRA) LTD.	1	3300.00	2.3011	1.4664	63.73
6	ADANI POWER RAJASTHAN Ltd.	1	1320.00	0.7047	0.6751	95.80
7	ADANI ELECTRICITY MUMBAI LIMITED	1	500.00	0.3347	0.3115	93.07
8	ADHUNIK POWER & NATURAL RESOURCES LTD	1	540.00	0.5740	0.4670	81.36
9	BAJAJ ENERGY PRIVATE LTD.	5	450.00	0.3018	0.2987	98.96
10	BHARAT ALUMINIUM COMPANY LTD (BALCO)	1	1200.00	0.7769	1.3948	179.54
11	C.E.S.C.	2	885.00	0.6481	0.6481	100.00
12	C.S.P.G.C.L	3	2840.00	2.7573	1.1725	42.52
13	COASTAL ENERGEN PVT. LTD	1	1200.00	0.0397	0.0397	100.00
14	COASTAL GUJARAT POWER LIMITED	1	4150.00	0.0270	0.0270	100.00
15	DB Power Ltd.,	1	1200.00	1.1762	1.7563	149.32
16	DAMODAR VALLEY CORPORATION	7	6750.00	6.5246	6.7932	104.12
17	THE DURGAPUR PROJECTS LIMITED	1	550.00	0.3306	0.2515	76.08
18	DHARIWAL INFRASTRUCTURE LTD. (MAHARASHTRA)	1	600.00	0.5419	0.5419	100.00
19	Mahan ENERGEN LTD	1	1200.00	0.5353	0.1944	36.31

Sl. No.	Name of Power Utility	No. of TPS	Installed Capacity (MW)	Fly Ash Generation (Million-tonnes)	Fly Ash Utilization (Million-tonnes)	Percentage Utilization %
20	ESSAR POWER GUJARAT LIMITED.	1	1200.00	0.0027	0.0020	76.35
21	GUJARAT INDUSTRIAL POWER CORPORATION LTD	1	500.00	0.2106	0.2106	100.00
22	GUJARAT MINERAL DEVELOPMENT CORPORATION LTD	1	250.00	0.0536	0.0743	138.43
23	GUJARAT STATE ELECTRICITY CORPORATION LTD	6	5160.00	2.6795	3.9675	148.07
24	GMR WARORA ENERGY LTD.	1	600.00	0.4472	0.5654	126.43
25	GMR KAMALANGA ENERGY LTD.	1	1050.00	1.0866	1.2591	115.88
26	HARYANA POWER GENERATION CORPORATION LTD	3	2510.00	2.3057	3.0774	133.47
27	HALDIA ENERGY LIMITED	1	600.00	0.6220	0.6220	100.00
28	HINDUJA NATIONAL POWER COPORATION LIMITED	1	1040.00	0.7631	0.2220	29.10
29	INDIA POWER CORPORATION LIMITED	1	12.00	0.0044	0.0044	100.00
30	INDIAN METALS & FERRO ALLOYS LTD.	1	200.00	0.2708	0.2708	100.00
31	IL & FS TAMIL NADU POWER COMPANY LTD	1	1200.00	0.0298	0.0301	100.79
32	JHAJJAR POWER LIMITED	1	1320.00	1.0132	0.9968	98.38
33	JINDAL POWER LIMITED	2	3400.00	3.2117	2.7543	85.76
34	JAIPRAKASH POWER VENTURES LIMITED	2	1820.00	1.2753	0.9092	71.29
35	JSW ENERGY LTD	2	2060.00	0.2458	0.1991	81.02
36	JINDAL INDIA THERMAL POWER LIMITED	1	1200.00	0.9867	0.7589	76.91
37	JSW Energy (Barmer) Ltd	1	1080.00	0.4381	0.4224	96.41
38	JHABUA POWER LIMITED	1	600.00	0.5837	0.2470	42.31
39	Karnataka Power Corporation Ltd.	2	3420.00	2.0157	1.6488	81.80
40	M/s KSK MAHANADI POWER COMPANY LIMITED	1	1800.00	1.1709	1.0981	93.78
41	LANCO AMARKANTAK POWER LIMITED	1	600.00	0.5105	0.6273	122.87

Sl. No.	Name of Power Utility	No. of TPS	Installed Capacity (MW)	Fly Ash Generation (Million-tonnes)	Fly Ash Utilization (Million-tonnes)	Percentage Utilization %
42	LALITPUR POWER GENERATION COMPANY LIMITED	1	1980.00	1.5362	1.4386	93.65
43	LANCO ANPARA POWER LTD	1	1200.00	0.8965	0.0729	8.14
44	Maithon Power Ltd (DVC+Tata Power JV)	1	1050.00	0.9949	0.8693	87.38
45	Madhya Pradesh Power Generation Company Ltd.	4	5400.00	3.3796	1.3986	41.38
46	Maharashtra State Power Generation Company Ltd.	7	9540.00	8.0357	5.8478	72.77
47	Maruti Clean Coal & Power Ltd	1	300.00	0.2492	0.2492	100.00
48	SAI WARDHA POWER GENERATION PVT Ltd.	1	540.00	0.2743	0.2743	100.00
49	RAIGARH ENERGY GENERATION LTD	1	600.00	0.5673	0.2029	35.76
50	MB POWER (MP) LIMITED	1	1200.00	1.2044	0.2059	100.12
51	N.L.C. LTD	5	3640.00	0.9288	2.0424	219.90
52	NLC TAMILNADU POWER LIMITED	1	1000.00	0.7689	0.7689	100.00
53	NSPCL	1	500.00	0.5521	0.7940	143.80
54	N.T.P.C. LTD	29	55560.00	43.8966	30.3454	69.13
55	NABHA POWER LIMITED,	1	1400.00	1.0987	1.0970	99.85
56	O.P.G.C.L.	1	1320.00	0.5278	0.1384	26.22
57	OPG POWER GENERATION PVT LTD.,	1	414.00	0.0440	0.0440	100.00
58	Punjab State Power Corporation Ltd.	3	2300.00	1.3277	0.9472	71.34
59	PRAYAGRAJ POWER GENERATION COMPANY LIMITED	1	1980.00	1.3509	0.7197	53.27
60	R K M POWERGEN PRIVATE LIMITED	1	1440.00	1.0902	1.1493	105.42
61	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	4	4940.00	3.4317	3.0531	88.97
62	Rosa Power Supply Company Ltd.	1	1200.00	0.8600	0.6310	73.37
63	RATTAN INDIA POWER LTD.,	1	1350.00	1.0853	0.9619	88.63

Sl. No.	Name of Power Utility	No. of TPS	Installed Capacity (MW)	Fly Ash Generation (Million-tonnes)	Fly Ash Utilization (Million-tonnes)	Percentage Utilization %
64	RAICHUR POWER CORPORATION LIMITED	1	1600.00	0.5945	0.5270	88.64
65	Raipur Energen Limited	1	1370.00	0.9477	0.9203	97.11
66	Reliance Power Ltd.,	1	3960.00	2.5832	0.0176	0.68
67	Sembcorp Energy India limited	2	2640.00	1.1467	1.1867	103.49
68	SKS POWER GENERATION (Chhattisgarh) LTD	1	600.00	0.1323	0.1862	140.68
69	The Singareni Collieries Company Limited	1	1200.00	1.0347	1.0351	100.03
70	Taqa Neyveli Power Company Pvt. Ltd.	1	250.00	0.0296	0.0349	117.94
71	Tata Power Company Ltd.	2	1297.50	0.6050	0.4605	76.12
72	Torrent Power Ltd.	1	362.00	0.1868	0.4361	233.39
73	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	5	4320.00	3.2578	2.4718	75.87
74	Telangana State Power Generation Corporation Ltd.(TSGENCO)	7	4042.50	3.0427	1.2682	41.68
75	Tenughat Vidyut Nigam Limited	1	420.00	0.3072	0.2557	83.25
76	Talwandi Sabo Power Ltd.,	1	1980.00	1.6308	1.2450	76.34
77	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	4	5880.00	5.0354	0.8942	17.76
78	Udupi Power Corporation Limited	1	1200.00	0.0182	0.0162	88.92
79	VS Lignite Power Pvt Ltd	1	135.00	0.0823	0.0823	100.00
80	Vedanta Ltd	1	2400.00	1.4488	1.6641	114.86
81	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	5	4685.00	3.4580	3.1625	91.45
	GRAND TOTAL	175	205623.00	142.0653	111.0124	78.14

Note: Percentage utilization of ash (i.e. Total Ash for Generation and Utilization purpose) more than 100% shows, that ash utilization over and above 100% is the ash utilized from Ash Ponds.

It may be seen from the **Table - II** above that:

The data of ash generation and utilization for the 1st half of the year 2022-23 was received from **81** Power Utilities having **175** Thermal Power Stations, out of which **36** Power Utilities with **68** Thermal Power Stations have achieved 100% or more average fly ash utilization respectively. Further, **20** Power Utilities have achieved average fly ash utilization in the range of 80% to less than 100% in respect of Thermal Power Stations numbering **34**.

The performance of power utilities during the 1st Half of the Year 2022-23 is tabulated below:

TABLE - III
POWER UTILITY-WISE RANGE OF PERCENTAGE FLY ASH UTILIZATION

Sl. No.	Level of Fly Ash utilization	No. of Power Utilities
		1 st Half of the Year 2022-23
(1)	(2)	(3)
1	100% and more than 100%	36
2	Less than 100% and up to 80%	20
3	Less than 80% and up to 60%	13
5	Less than 60%	12
	TOTAL	81

2.3 Statewise Status of Ash Generation & its Utilization during the 1st Half of the Year 2022-23

The statewise status of fly ash generation & utilization in the Country based on data received from Thermal Power Stations / Power Utilities has also been assessed and the same is given in **Table – IV**:

TABLE - IV
STATE WISE FLY ASH GENERATION AND ITS UTILIZATION DURING THE
1ST HALF YEAR 2022-23

Sl. No.	Name of State	No. of TPS	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	Percentage Utilization (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	ANDHRA PRADESH	7	10690.00	7.7586	8.7399	112.65
2	ASSAM	1	750.00	0.5536	0.2893	52.26
3	BIHAR	6	8160.00	6.7623	7.2011	106.49
4	CHHATTISGARH	23	23520.00	20.6330	14.5693	70.61
5	GUJARAT	12	16242.00	3.3586	4.9163	146.38
6	HARYANA	5	5330.00	4.3445	5.1492	118.52
7	JHARKHAND	7	4557.50	4.2848	4.9046	114.47
8	KARNATAKA	6	9480.00	3.8918	3.0978	79.60
9	MADHYA PRADESH	13	21860.00	15.1695	5.5505	36.59
10	MAHARASHTRA	17	22020.00	15.5697	11.9028	76.45
11	ODISHA	7	10770.00	9.3846	6.1015	65.02
12	PUNJAB	5	5680.00	4.0572	3.2892	81.07
13	RAJASTHAN	8	7725.00	4.7575	4.3336	91.09
14	TAMIL NADU	15	13274.00	6.4830	6.5251	100.65
15	TELANGANA	9	7842.50	6.1273	4.1998	68.54
16	UTTAR PRADESH	19	24140.00	18.0407	9.0436	50.13
17	WEST BENGAL	15	13582.00	10.8886	11.1988	102.85
	GRAND TOTAL	175	205623.00	142.0653	111.0124	78.14

It may be seen from **Table - IV** above that:

- (i) 5 states namely Chhattisgarh, Madhya Pradesh, Maharashtra, Uttar Pradesh and West Bengal each have generated more than 10 million-tonnes of fly ash during the

1st half of the Year 2022-23. Maximum fly ash of more than **20** million-ton was generated in Chhattisgarh during the aforesaid period.

- (ii) During the 1st half of the Year 2022-23, Out of **17** states, Andhra Pradesh, Bihar Gujarat, Haryana, Jharkhand, Tami Nadu and West Bengal have achieved the fly ash utilization level of more than 100% with Gujarat reporting highest **146.38** % fly ash utilization.

3.0 PRESENT STATUS OF FLY ASH UTILIZATION AS PER MoEF & CC's NOTIFICATION OF 31st DECEMBER, 2021 FOR THE 1ST HALF OF THE YEAR 2022-23

Fly ash generation and utilization data received from Thermal Power Stations / Power Utilities in the country for the 1st half of the year 2022-23 has been compiled to see the fly ash utilization vis-à-vis the target of fly ash utilization as prescribed in MoEF & CC's notification of 31st December, 2021. Para A (4) of the Notification stipulates the conditions regarding the utilization of fly ash. The present status is as shown in Table-V below:

Table-V

Present Status for the 1st Half of the Year 2022 - 23

Category	Utilization percentages of TPPs (Base year 1 st Half of the Year 2021-22)	No. of TPPs (Base Year – 1 st Half Year of 2021-22)	No. TPPs during 1 st Half of 2022-23	
			Target achieved (100%)	Target <u>not yet</u> achieved (Less than 100%)
I	> 80%	100	58	42
II	60 – 80 %	36	7	29
III	< 60%	36	1	35
IV	Data Not Available	3	2	1
	Grand Total	175	68	107

From the above table, it may be seen that out of **175** TPPs, **68** TPPs i.e. about **39%** have achieved the target of 100%. It may be noted the 1st Compliance Cycle has started from 1st April, 2022. So those TPPs which are in Category I, II and III have 3, 4 and 5 years to achieve the target of 100% as per the provisions of Notification.

3.1 Range of Fly Ash Utilization during the 1st Half of the Year 2022-23

Based on the fly ash utilization data received from Thermal Power Stations / Power Utilities, the Thermal Power Stations have been grouped into Five categories as shown below depending upon range of utilization of fly ash by the stations.

TABLE – VI

POWER STATION WISE RANGE OF PERCENTAGE FLY ASH UTILIZATION

Sl. No.	Level of Fly Ash utilization	1 st Half of the Year 2022 - 23
(1)	(2)	(3)
1	100% and more than 100%	68
2	Less than 100% and up to 80%	34
3	Less than 80% and up to 60%	26
5	Less than 60%	46
6	No Generation	1
	TOTAL	175

3.2 Thermal Power Stations that have achieved Fly Ash utilization level of 100% or more during the 1st half of the Year 2022-23

The following Thermal Power Stations, as given in **Table – VII**, have achieved the fly ash utilization level of 100% or more during the 1st half of the year 2022-23.

TABLE – VII

THERMAL POWER STATIONS WITH FLY ASH UTILIZATION LEVEL OF 100% OR MORE DURING THE 1ST HALF Of The YEAR 2022-23

Sl No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
						%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Dr. N.T.R (Vijayawada)	APGENCO	1760	2.0389	2.2478	110.24
2	KASAI PALI	ACB (INDIA) LTD	270	0.2170	0.2171	100.05
3	CHAKABURA TPP	ACB (INDIA) Ltd.	30	0.0575	0.0575	100.00

SI No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
						%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
4	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	30	0.0670	0.0670	100.00
5	RATIJA TPS	ACB (INDIA) LIMITED	100	0.1846	0.1846	100.00
6	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	4620	0.1984	0.1989	100.24
7	BALCO TPP-III	Bharat Aluminium Company Ltd (BALCO)	1200	0.7769	1.3948	179.54
8	BUDGE BUDGE GENERATING STATION	C.E.S.C.	750	0.5754	0.5754	100.00
9	SOUTHERN GENERATING STATION	C.E.S.C.	135	0.0727	0.0727	100.00
10	MUTIARA	COASTAL ENERGEN PVT. LTD	1200	0.0397	0.0397	100.00
11	MUNDRA UMPP	Coastal Gujarat Power Limited	4150	0.0270	0.0270	100.00
12	DB Power Ltd.	DB Power Ltd.,	1200	1.1762	1.7563	149.32
13	BOKARO	Damodar Valley Corporation	500	0.4555	0.6338	139.13
14	CHANDRAPURA	Damodar Valley Corporation	500	0.4431	0.6530	147.38
15	DURGAPUR STEEL	Damodar Valley Corporation	1000	0.9143	1.5938	174.32
16	KODERMA	Damodar Valley Corporation	1000	0.9426	1.6014	169.89
17	DHARIWAL INFRASTRUCTURE Ltd.	Dhariwal Infrastructure Ltd. (Maharashtra)	600	0.5419	0.5419	100.00
18	SURAT LIGNITE	Gujarat Industrial Power corporation Ltd	500	0.2106	0.2106	100.00
19	AKRIMOTA	Gujarat Mineral Development corporation Ltd	250	0.0536	0.0743	138.43
20	GANDHINAGAR	Gujarat State Electricity corporation Ltd	630	0.4319	1.4258	330.12
21	KUTCH LIGNITE	Gujarat State Electricity corporation Ltd	150	0.1426	0.1652	115.85
22	SIKKA	Gujarat State Electricity corporation Ltd	500	0.0233	0.1895	813.30
23	UKAI	Gujarat State Electricity corporation Ltd	1110	0.6793	0.6923	101.91

SI No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
						%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
24	WANAKBORI	Gujarat State Electricity corporation Ltd	2270	1.3332	1.4412	108.10
25	GMR WARORA ENERGY Ltd.	GMR WARORA ENERGY Ltd.	600	0.4472	0.5654	126.43
26	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY Ltd.	1050	1.0866	1.2591	115.88
27	PANIPAT	Haryana Power Generation Corporation Ltd	710	0.6983	2.2880	327.64
28	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	600	0.6220	0.6220	100.00
29	DISHERGARH POWER STATION	INDIA POWER CORPORATION LIMITED	12	0.0044	0.0044	100.00
30	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS Ltd.	200	0.2708	0.2708	100.00
31	IL & FS TAMIL NADU POWER COMPANY Ltd	IL & FS TAMIL NADU POWER COMPANY Ltd	1200	0.0298	0.0301	100.79
32	RAICHUR	Karnataka Power Corporation Ltd.	1720	0.9749	1.0925	112.06
33	AMARKANTAK - LANCO	LANCO AMARKANTAK POWER LIMITED	600	0.5105	0.6273	122.87
34	SATPURA	Madhya Pradesh Power Generation Company Ltd.	1330	0.4657	0.4700	100.93
35	BHUSAVAL - MSPGCL	Maharashtra State Power Generation Company Ltd.	1210	1.1193	1.3612	121.62
36	NASHIK	Maharashtra State Power Generation Company Ltd.	630	0.5256	1.4402	274.02
37	PARLI	Maharashtra State Power Generation Company Ltd.	750	0.5924	0.8071	136.23
38	MCCPL BANDHAKHAR	Maruti Clean Coal & Power Ltd	300	0.2492	0.2492	100.00
39	ANUPPUR	MB POWER (MP) LIMITED	1200	1.2044	1.2059	100.12
40	NEYVELI -I EXPN	N.L.C. LTD	420	0.1021	0.1021	100.00

SI No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
						%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
41	NEYVELI - II	N.L.C. LTD	1470	0.3988	1.5908	398.91
42	NEYVELI - II EXPN	N.L.C. LTD	500	0.0781	0.0841	107.68
43	BARSINGSAR LIGNITE	N.L.C.LTD	250	0.1008	0.1008	100.00
44	NLC TAMILNADU POWER LTD. (Tuticorin)	NLC TAMILNADU POWER LIMITED	1000	0.7689	0.7689	100.00
45	BHILAI PP-III	NSPCL	500	0.5521	0.7940	143.80
46	TANDA	N.T.P.C. LTD	1760	1.5819	1.6136	102.00
47	SIMHADRI	N.T.P.C. LTD	2000	1.6521	3.1653	191.59
48	FARAKKA	N.T.P.C. LTD	2100	1.1419	2.6053	228.14
49	KAHALGAON	N.T.P.C. LTD	2340	1.9074	2.2838	119.73
50	BARH SUPER TPS	N.T.P.C. LTD	1980	1.7377	2.5696	147.88
51	SOLAPUR	N.T.P.C. LTD	1320	0.6858	0.6959	101.47
52	INDIRA GANDHI SUPER TPP, JHAJJAR	ARAVALI POWER COMPANY PRIVATE LIMITED (NTPC JV)	1500	1.0256	1.0750	104.82
53	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC JV)	390	0.3517	0.5512	156.75
54	OPG POWER GENERATION PVT LTD	OPG POWER GENERATION PVT LTD.,	414	0.0440	0.0440	100.00
55	RKM Power Gen Pvt. Ltd.(Uchpinda)	R K M POWERGEN PRIVATE LIMITED	1440	1.0902	1.1493	105.42
56	Kota Super TPS	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	1240	1.0582	1.2705	120.06
57	SAI WARDHA POWER GENERATION PVT LTD	SAI WARDHA POWER GENERATION PVT LTD	540	0.2743	0.2743	100.00

Sl No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
						%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
58	SEMBCORP ENERGY INDIA LIMITED, Plant-2	SEMBCORP ENERGY INDIA LIMITED	1320	0.2970	0.3373	113.58
59	SKS POWER GENERATION (CHHATTISGARH) LTD	SKS POWER GENERATION (CHHATTISGARH) LTD	600	0.1323	0.1862	140.68
60	SINGARENI	THE SINGARENI COLLIERIES COMPANY LIMITED	1200	1.0347	1.0351	100.03
61	CUDDALORE - TAQA	TAQA Neyveli Power Company Pvt. Ltd.	250	0.0296	0.0349	117.94
62	SABARMATI	TORRENT POWER LTD.	362	0.1868	0.4361	233.39
63	METTUR-I	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	840.0	0.7811	0.8096	103.65
64	NORTH CHENNAI-I	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	630	0.4578	0.4766	104.12
65	VS LIGNITE POWER PVT LTD	VS LIGNITE POWER PVT LTD	135	0.0823	0.0823	100.00
66	VEDANTA TPP	VEDANTA LTD	2400	1.4488	1.6641	114.86
67	KOLAGHAT	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	1260	0.6087	0.6702	110.10
68	SAGARDIGHI	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	1600	1.0075	1.3980	138.75

It may be seen from **Table - VII** above that:

During the 1st half of the Year 2022-23, **68** Thermal Power Stations have achieved the fly ash utilization level of 100 % or more, out of which **49** Thermal Power Stations have achieved fly ash utilization level of more than 100 %.

Fly ash utilization level of more than 100 % indicates full utilization of fly ash generated during the period of report along with that from Ash Ponds.

3.3 Thermal Power Stations with Fly Ash Utilization Level of 80% to less than 100% during the 1st half of the Year 2022-23

The Thermal Power Stations have achieved the fly ash utilization in the range of 80% to less than 100% during the 1st half year 2022-23 are given in **Table - VIII** below:

TABLE – VIII

THERMAL POWER STATIONS WITH FLY ASH UTILIZATION LEVEL OF LESS THAN 100 % AND UPTO 80 % DURING 1ST HALF OF THE YEAR 2022-23

Sl No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	RAYALSEEMA	APGENCO	1650	1.4448	1.3705	94.86
2	KAWAI	ADANI POWER RAJASTHAN Ltd.	1320	0.7047	0.6751	95.80
3	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	500	0.3347	0.3115	93.07
4	Mahadeo Prasad STPP	Adhunik Power & Natural Resources Ltd	540	0.5740	0.4670	81.36
5	BARKHERA	Bajaj Energy Private Ltd.	90	0.0638	0.0633	99.13
6	KHAMBARKHERA	Bajaj Energy Private Ltd.	90	0.0555	0.0550	99.15
7	KUNDARKI	Bajaj Energy Private Ltd.	90	0.0593	0.0588	99.19
8	MAQSOODAPUR	Bajaj Energy Private Ltd.	90	0.0590	0.0581	98.46
9	UTRAULA	Bajaj Energy Private Ltd.	90	0.0641	0.0634	98.88
10	MAHATMA GANDHI TPP, Jhajjar	JHAJJAR POWER LIMITED	1320	1.0132	0.9968	98.38
11	O.P. Jindal Super TPP (Stage-I)	JINDAL POWER LIMITED	1000	1.0544	0.9097	86.28
12	O.P. Jindal Super TPP (Stage-II)	JINDAL POWER LIMITED	2400	2.1573	1.8446	85.50

Sl No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
(1)	(2)	(3)	(4)	(5)	(6)	(7)
13	JSW Energy Ltd. (Ratnagiri)	JSW Energy Ltd	1200	0.1213	0.1147	94.55
14	JSW Energy (Barmer) Ltd. (Jalipa kapurdi)	JSW Energy (Barmer) Ltd	1080	0.4381	0.4224	96.41
15	KMPCL-Nariyara	M/s KSK MAHANADI POWER COMPANY LIMITED	1800	1.1709	1.0981	93.78
16	LALITPUR TPS	LALITPUR POWER GENERATION COMPANY LIMITED	1980	1.5362	1.4386	93.65
17	MAITHON RIGHT BANK TPP	Maithon Power Ltd (DVC+Tata Power JV)	1050	0.9949	0.8693	87.38
18	NWYVELI NEW TPS	N.L.C.LTD	1000	0.2490	0.2441	98.02
19	DADRI	N.T.P.C. LTD	1820	1.2189	1.0687	87.67
20	RAMAGUNDAM - NTPC	N.T.P.C. LTD	2600	2.0499	1.9007	92.72
21	VALLUR	NTECL (NTPC JV)	1500	1.4851	1.1942	80.41
22	Rajpura TPS	NABHA POWER LIMITED,	1400	1.0987	1.0970	99.85
23	GVK POWER (GOINDWALASAHIB) LTD	Punjab State Power Corporation Ltd.	540	0.2337	0.2089	89.39
24	SURATGARH TPS	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	1500	1.0820	0.9655	89.24
25	AMARAVATI TPS	RATTAN INDIA POWER LTD.,	1350	1.0853	0.9619	88.63
26	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	1600	0.5945	0.5270	88.64
27	Raipur TPP	Raipur Energen Limited	1370	0.9477	0.9203	97.11
28	SEMBICORP ENERGY INDIA LIMITED	SEMBICORP ENERGY INDIA LIMITED	1320	0.8497	0.8494	99.96
29	TROMBAY	Tata Power Company Ltd.	750	0.0375	0.0361	96.27

Sl No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization
(1)	(2)	(3)	(4)	(5)	(6)	(7)
30	NORTH CHENNAI-II	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	1200	0.7196	0.6427	89.32
31	KAKATIYA (Stage-I)	Telangana State Power Generation Corporation Ltd. (TSGENCO)	500	0.2773	0.2285	82.42
32	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	420	0.3072	0.2557	83.25
33	UDUPI	Udupi Power Corporation Limited	1200	0.0182	0.0162	88.92
34	BANDEL	The West Bengal Power Development Corporation Ltd. (WBPDC)	275	0.3133	0.3032	96.78

It may be seen from **Table - VIII** above that **34** Thermal Power Stations during the 1st half of the year 2022-23 have achieved fly ash utilization level in the range of 80% to less than 100%.

3.4 Thermal Power Stations with Fly Ash Utilization Level of 60% to less than 80% during the 1st half of the Year 2022-23

The Thermal Power Stations which have achieved the fly ash utilization in the range of 60% to less than 80% during the 1st half year 2022-23 along with fly ash utilization level achieved by each of these power stations are given in **Table - IX** below:

TABLE-IX
THERMAL POWER STATIONS WITH FLY ASH UTILIZATION LEVEL OF LESS THAN 80% AND UP TO 60% DURING THE 1st HALF OF THE YEAR 2022-23

SI No.	Name of TPS	Power Utility	Installed Capacity	Fly Ash Generation	Fly Ash Utilization	Percentage Utilization %
			(Mega Watts)	(Million Tonnes)	(Million Tonnes)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	SRI DAMODARAM SANJEEVAIAH	APPDCL	1600	0.7129	0.5476	76.81
2	TIRODA	ADANI POWER (MAHARASHTRA) LTD.	3300	2.3011	1.4664	63.73
3	Atal Bihari Vajpayee TPS	C.S.P.G.C.L	1000	0.7968	0.5243	65.80
4	MEJIA	Damodar Valley Corporation	2340	2.7449	2.1805	79.44
5	The Durgapur Projects Power Station (DPPS)	The Durgapur Projects Limited	550	0.3306	0.2515	76.08
6	Essar Power Gujarat Limited (SALAYA)	Essar Power Gujarat Limited.	1200	0.0027	0.0020	76.35
7	BHAVNAGAR LIGNITE	Gujarat State Electricity corporation Ltd	500	0.0692	0.0535	77.31
8	JAYPEE NIGRIE SUPER	JAIPRAKASH POWER VENTURES LIMITED	1320	0.8681	0.6725	77.47
9	KHAPARKHEDA	Maharashtra State Power Generation Company Ltd.	1340	1.3294	0.9270	69.73
10	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	1200	0.9867	0.7589	76.91
11	PARAS	Maharashtra State Power Generation Company Ltd.	500	0.5164	0.3801	73.62
12	FEROZE GANDHI UNCHAHAR	N.T.P.C. LTD	1550	1.1179	0.7847	70.19
13	MOUDA TPS	N.T.P.C. LTD	2320	1.7050	1.0870	63.75
14	KUDGI	N.T.P.C. LTD	2400	1.1389	0.8213	72.11
15	BARAUNI	N.T.P.C. LTD	720	0.4900	0.3735	76.24
16	KHARGONE SUPER TPS	N.T.P.C. LTD	1320	0.6795	0.4605	67.77
17	NABINAGAR - BRBCL	BHARATIYA RAIL BIJLEE COMPANY LTD (NTPC JV)	750	1.0164	0.7445	73.25
18	Guru Hargobind, LEHRA MOHABAT	Punjab State Power Corporation Ltd.	920	0.5334	0.3466	64.98

SI No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly Ash Generation (Million Tonnes)	Fly Ash Utilization (Million Tonnes)	Percentage Utilization %
(1)	(2)	(3)	(4)	(5)	(6)	(7)
19	Guru Gobind Singh TPS, Ropar	Punjab State Power Corporation Ltd.	840	0.5607	0.3917	69.86
20	KALISINDH	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	1200	0.7326	0.5441	74.26
21	ROSA Phase -I	Rosa Power Supply Company Ltd.	1200	0.8600	0.6310	73.37
22	JOJOBERA	Tata Power Company Ltd.	547.5	0.5675	0.4244	74.79
23	METTUR-II	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	600	0.3765	0.2636	70.00
24	KOTHAGUEDEM-VI	Telangana State Power Generation Corporation Ltd. (TSGENCO)	500	0.4446	0.2939	66.11
25	KAKATIYA (Stage-II)	Telangana State Power Generation Corporation Ltd. (TSGENCO)	600	0.5023	0.3560	70.87
26	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.,	1980	1.6308	1.2450	76.34

It may be seen from **Table - IX** above that **26** Thermal Power Stations during the 1st half of the year 2022-23 have achieved fly ash utilization level in the range of 60% to less than 80%.

3.5 Thermal Power Stations with Fly Ash Utilization Level of less than 60% during the 1st half of the Year 2022-23

The Thermal Power Stations which have achieved the fly ash utilization level of less than 60% during the 1st half year 2022-23 along with fly ash utilization level achieved by each of these power stations are given in **Table – X**:

TABLE-X
THERMAL POWER STATIONS WITH FLY ASH UTILIZATION LEVEL LESS THAN 60% DURING THE 1st HALF OF THE YEAR 2022-23

SI No.	Name of TPS	Power Utility	Installed Capacity	Fly Ash Generation	Fly Ash Utilization	Percentage Utilization
			(Mega Watts)	(Million Tonnes)	(Million Tonnes)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Dr. Shyama Prasad Mukherjee TPS (DSPM)	C.S.P.G.C.L	500	0.5802	0.2394	41.26
2	Hasdeo TPP (Korba West)	C.S.P.G.C.L	1340	1.3803	0.4088	29.62
3	DURGAPUR	Damodar Valley Corporation	210	0.0824	0.0258	31.26
4	RAGHUNATHPUR	Damodar Valley Corporation	1200	0.9418	0.1049	11.14
5	RAJIV GANDHI TPP HISAR	Haryana Power Generation Corporation Ltd	1200	0.9676	0.4087	42.24
6	Deen Bandhu Chhotu Ram,TPP Plant (DCRTPP),Yamuna Nagar	Haryana Power Generation Corporation Ltd	600	0.6398	0.3807	59.50
7	HINDUJA NATIONAL POWER COPORATION TPP (Vizag)	HINDUJA NATIONAL POWER COPORATION LIMITED	1040	0.7631	0.2220	29.10
8	JAYPEE BINA	JAIPRAKASH POWER VENTURES LIMITED	500	0.4072	0.2366	58.12
9	JHABUA POWER LIMITED	JHABUA POWER LIMITED	600	0.5837	0.2470	42.31
10	BALLARI	Karnataka Power Corporation Ltd.	1700	1.0407	0.5563	53.45
11	LANCO ANPARA POWER LTD	LANCO ANPARA POWER LTD	1200	0.8965	0.0729	8.14
12	MAHAN TPP	MAHAN ENERGEN LIMITE	1200	0.5353	0.1944	36.31
13	SANJAY GANDHI	Madhya Pradesh Power Generation Company Ltd.	1340	1.0310	0.5133	49.79
14	AMARKANTAK MPPGCL	Madhya Pradesh Power Generation Company Ltd.	210	0.1453	0.0385	26.49
15	SHREE SINGAJI TPS	Madhya Pradesh Power Generation Company Ltd.	2520	1.7376	0.3768	21.68
16	CHANDRAPUR SUPER TPP	Maharashtra State Power Generation Company Ltd.	2920	2.4287	0.4385	18.05

SI No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly Ash Generation (Million Tonnes)	Fly Ash Utilization (Million Tonnes)	Percentage Utilization
(1)	(2)	(3)	(4)	(5)	(6)	(7)
17	KHAPARKHEDA	Maharashtra State Power Generation Company Ltd.	1340	1.3294	0.5720	43.03
18	KORADI	Maharashtra State Power Generation Company Ltd.	2190	1.5239	0.8487	55.69
19	SINGRAULI	N.T.P.C. LTD	2000	1.5499	0.3450	22.26
20	RIHAND	N.T.P.C. LTD	3000	1.9454	0.8082	41.55
21	KORBA SUPER - NTPC	N.T.P.C. LTD	2600	2.5562	0.5008	19.59
22	VINDHYACHAL	N.T.P.C. LTD	4760	3.9857	0.7276	18.26
23	SIPAT	N.T.P.C. LTD	2980	2.5801	0.9338	36.19
24	Nabinagar -NPGC Ltd	N.T.P.C. LTD	1980	1.2592	0.6784	53.88
25	TALCHER - KANIHA	N.T.P.C. LTD	3000	3.2324	1.6723	51.74
26	Darlipali	N.T.P.C. LTD	1600	1.8316	0.3379	18.45
27	BONGAIGAON	N.T.P.C. LTD	750	0.5536	0.2893	52.26
28	GADARWARA	N.T.P.C. LTD	1600	0.9426	0.3897	41.35
29	Lara Super TPP	N.T.P.C. LTD	1600	1.8282	0.3034	16.60
30	MEJA TPP	MEJA URJA NIGAM PVT LTD (NTPC JV)	1320	0.6459	0.3683	57.02
31	IB VALLEY	O.P.G.C.L.	1320	0.5278	0.1384	26.22
32	PRAYAGRAJ	PRAYAGRAJ POWER GENERATION COMPANY LTD.	1980	1.3509	0.7197	53.27
33	RAIGARH TPP	RAIGARH ENERGY GENERATION LTD	600	0.5673	0.2029	35.76

SI No.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly Ash Generation (Million Tonnes)	Fly Ash Utilization (Million Tonnes)	Percentage Utilization
(1)	(2)	(3)	(4)	(5)	(6)	(7)
34	CHHABRA	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	1000	0.5589	0.2730	48.84
35	SASAN UMPP	RELIANCE POWER LTD.	3960	2.5832	0.0176	0.68
36	TUTICORIN	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	1050	0.9229	0.2793	30.27
37	RAMAGUNDAM-B	Telangana State Power Generation Corporation Ltd.(TSGENCO)	62.5	0.0523	0.0060	11.52
38	KOTHAGUEDEM-V	Telangana State Power Generation Corporation Ltd.(TSGENCO)	500	0.6510	0.1784	27.41
39	KOTHAGUEDEM-VII	Telangana State Power Generation Corporation Ltd.(TSGENCO)	800	0.2576	0.1336	51.85
40	Bhadradi TPS Manuguru	Telangana State Power Generation Corporation Ltd	1080	0.8577	0.0718	8.38
41	ANPARA 'A' & 'B'	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	2630	2.4660	0.0353	1.43
42	Harduaganj TPP	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	1330	0.9524	0.3069	32.23
43	OBRA	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	1000	0.7572	0.0439	5.79
44	PARICHHA	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	920	0.8598	0.5082	59.11
45	SANTALDIH	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	500	0.7751	0.4279	55.21
46	BAKRESWAR	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	1050	0.7533	0.3631	48.20

It may be seen from **Table - X** above that:

During the 1st half of the year 2022-23, out of **175** Thermal Power Stations, **46** stations achieved the level of fly ash utilization to less than 60%.

3.6 Thermal Power Stations with NO FLY ASH Generation during the 1st half of the Year 2022-23

The Thermal Power Stations, which have **NO FLY ASH GENERATION** during the 1st half year 2022-23 along with the details of these power stations are given in **Table – XI**:

Table - XI

**THERMAL POWER STATIONS WITH FLY ASH UTILIZATION WITH NO GENERATION
DURING THE 1ST HALF OF THE YEAR 2022 – 23**

Sl. No.	Name of TPS	Power Utility	Installed Capacity	Remarks
			(Mega Watts)	
(1)	(2)	(3)	(4)	(5)
1	SVPPL RENKI	ACB (INDIA) Ltd. (Chhattisgarh)	60.00	Plant is under shut down

4.0 MODES OF FLY ASH UTILIZATION DURING THE 1st HALF OF THE YEAR 2022-23

The data on fly ash utilization received from Thermal Power Stations / Power Utilities for the 1st half of the year 2022-23 has been compiled to ascertain the modes in which fly ash was utilized and the quantity utilized in each mode.

The modes in which fly ash were utilized during the 1st half year 2022-23 along with utilization in each mode are given in **Table – XII** :

TABLE-XII
MODES OF FLY ASH UTILIZATION DURING THE 1ST HALF YEAR 2022 - 23

Sl. No.	Mode of utilization	Quantity of Fly Ash utilized in the mode of utilization	
		Million Tonnes	Percentage (%)
(1)	(2)	(3)	(4)
1	Cement	37.6957	26.53
2	Mine filling	9.6108	6.77
3	Bricks & Tiles	14.4609	10.18
4	Reclamation of low lying area	12.3519	8.69
5	Roads & flyovers	29.2505	20.59
6	Agriculture	0.2823	0.20
7	Concrete	1.3715	0.97
8	Hydro Power Sector	0.0029	0.00
9	Others	5.9859	4.21
10	Unutilized Fly Ash	31.0529	21.86
	Total	142.0653	100.00

The PIE diagram showing the modes of utilization of fly ash during the 1st half of the Year 2022-23 is given in Figure-1 below:

Modes of Fly Ash Utilization during 1st Half of the Year 2022 - 23

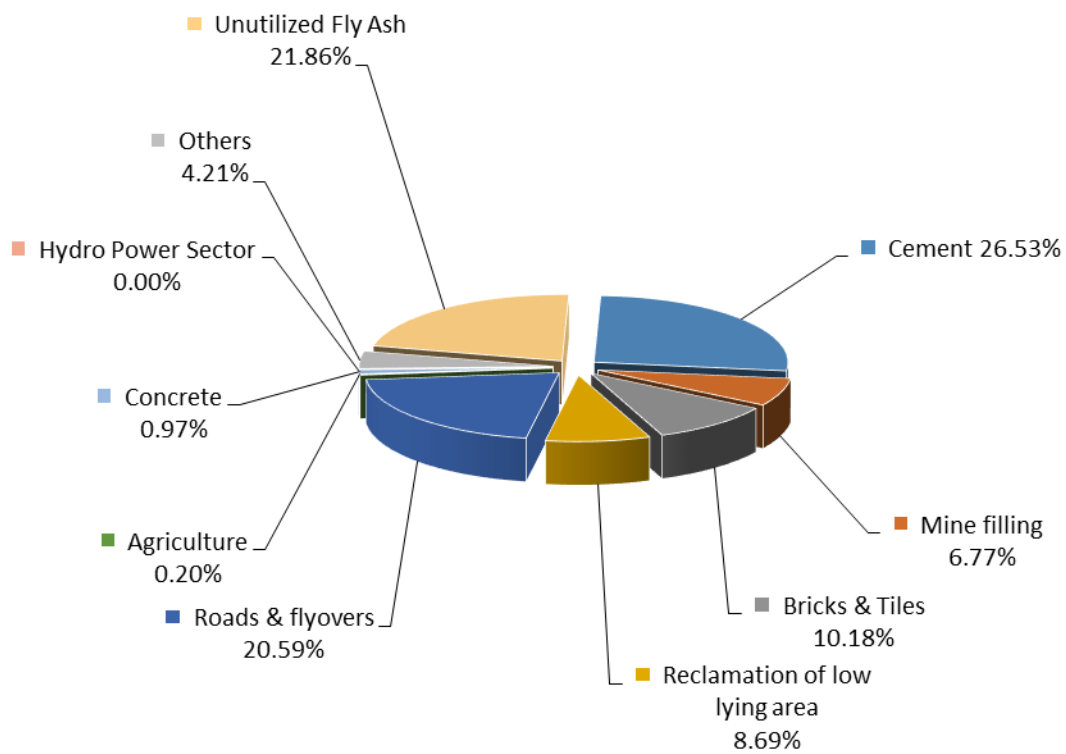


Figure-1

It may be seen from **Table - XII** and Figure -1 above that:

During the 1st half of the Year 2022-23, the maximum utilization of fly ash to the extent of 26.53 % of total fly ash utilized was in the Cement sector, followed by 20.59 % in Roads & flyovers, 10.18 % in Bricks & Tiles, 8.69 % in Reclamation of low lying area, , 6.77 % in Mine Filling, 0.97 % in concrete, 0.20 % in Agriculture, 4.21 % in others and 21.86 % Fly Ash remain Unutilized.

4.1 TOTAL ASH STOCK POSITION AS ON 30.09.2022

The Total Ash Stock Position as reported by each Thermal Power Station as on 30.09.2022 is as shown below. A total of 1677.30 Million Tonnes of Ash which includes all ash in Operational Dykes, Non Operational Dykes, Ash Ponds etc.

Table – XIII
TOTAL ASH STOCK POSITION AS ON 30.9.2022

Sl No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
1	Dr. N.T.R (Vijayawada)	APGENCO	Andhra Pradesh	1760.00	41.8121
2	RAYALSEEMA	APGENCO	Andhra Pradesh	1650.00	16.2995
3	SRI DAMODARAM SANJEEVAIAH	APPDCL	Andhra Pradesh	1600.00	3.3881
4	KASAI PALI	ACB (INDIA) LTD	Chhattisgarh	270.00	0.6872
5	SVPPL Renki	ACB (India) Limited	Chhattisgarh	60.00	0.0000
6	CHAKABURA TPP	ACB (INDIA) Ltd.	Chhattisgarh	30.00	0.0000
7	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	Chhattisgarh	30.00	0.0000
8	RATIJA TPS	ACB (INDIA) LIMITED	Chhattisgarh	100.00	0.4100
9	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	Gujarat	4620.00	0.0318
10	TIRODA	ADANI POWER (MAHARASHTRA) LTD.	Maharashtra	3300.00	5.2570
11	KAWAI	ADANI POWER RAJASTHAN Ltd.	Rajasthan	1320.00	0.1755
12	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	Maharashtra	500.00	2.1730

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
13	Mahadeo Prasad STPP	Adhunik Power & Natural Resources Ltd	Jharkhand	540.00	0.2500
14	BARKHERA	Bajaj Energy Private Ltd.	Uttar Pradesh	90.00	0.0006
15	KHAMBARKHERA	Bajaj Energy Private Ltd.	Uttar Pradesh	90.00	0.0006
16	KUNDARKI	Bajaj Energy Private Ltd.	Uttar Pradesh	90.00	0.0006
17	MAQSOODAPUR	Bajaj Energy Private Ltd.	Uttar Pradesh	90.00	0.0011
18	UTRAULA	Bajaj Energy Private Ltd.	Uttar Pradesh	90.00	0.0009
19	BALCO TPP-III	Bharat Aluminium Company Ltd (BALCO)	Chhattisgarh	1200.00	1.3164
20	Budge Budge Generating Station	C.E.S.C.	West Bengal	750.00	0.0000
21	Southern Generating Station	C.E.S.C.	West Bengal	135.00	0.0000
22	Atal Bihari Vajpayee TPS	C.S.P.G.C.L	Chhattisgarh	1000.00	4.8820
23	Dr. Shyama Prasad Mukherjee TPS (DSPM)	C.S.P.G.C.L	Chhattisgarh	500.00	19.3181
24	Hasdeo TPP (Korba West)	C.S.P.G.C.L	Chhattisgarh	1340.00	58.9366
25	MUTIARA	COASTAL ENERGEN PVT. LTD	Tamil Nadu	1200.00	0.0000
26	MUNDRA UMPP	Coastal Gujarat Power Limited	Gujarat	4150.00	1.7300
27	DB Power Ltd.	DB Power Ltd.,	Chhattisgarh	1200.00	1.3282
28	BOKARO	Damodar Valley Corporation	Jharkhand	500.00	0.6982
29	CHANDRAPURA	Damodar Valley Corporation	Jharkhand	500.00	4.0264
30	DURGAPUR	Damodar Valley Corporation	West Bengal	210.00	3.2556
31	MEJIA	Damodar Valley Corporation	West Bengal	2340.00	19.7160
32	DURGAPUR STEEL	Damodar Valley Corporation	West Bengal	1000.00	4.6260
33	KODERMA	Damodar Valley Corporation	Jharkhand	1000.00	2.1260
34	RAGHUNATHPUR	Damodar Valley Corporation	West Bengal	1200.00	6.4135
35	The Durgapur Projects Power Station (DPPS)	The Durgapur Projects Limited	West Bengal	550.00	1.0880
36	DHARIWAL INFRASTRUCTURE Ltd.	Dhariwal Infrastructure Ltd. (Maharashtra)	Maharashtra	600.00	0.0000

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
37	Essar Power Gujarat Limited (SALAYA)	Essar Power Gujarat Limited.	Gujarat	1200.00	0.0014
38	SURAT LIGNITE	Gujarat Industrial Power corporation Ltd	Gujarat	500.00	0.0000
39	AKRIMOTA	Gujarat Mineral Development corporation Ltd	Gujarat	250.00	0.0001
40	GANDHINAGAR	Gujarat State Electricity corporation Ltd	Gujarat	630.00	3.7110
41	KUTCH LIGNITE	Gujarat State Electricity corporation Ltd	Gujarat	150.00	0.8170
42	SIKKA	Gujarat State Electricity corporation Ltd	Gujarat	500.00	0.4160
43	UKAI	Gujarat State Electricity corporation Ltd	Gujarat	1110.00	12.9600
44	WANAKBORI	Gujarat State Electricity corporation Ltd	Gujarat	2270.00	38.5570
45	BHAVNAGAR LIGNITE	Gujarat State Electricity corporation Ltd	Gujarat	500.00	0.0157
46	GMR WARORA ENERGY Ltd.	GMR WARORA ENERGY Ltd.	Maharashtra	600.00	0.0967
47	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY Ltd.	Odisha	1050.00	0.1244
48	RAJIV GANDHI TPP HISAR	Haryana Power Generation Corporation Ltd	Haryana	1200.00	4.9706
49	Deen Bandhu Chhotu Ram TPP (Yamuna Nagar)	Haryana Power Generation Corporation Ltd	Haryana	600.00	1.5586
50	PANIPAT	Haryana Power Generation Corporation Ltd	Haryana	710.00	20.8173
51	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	West Bengal	600.00	0.0000
52	HINDUJA NATIONAL POWER COPORATION TPP (Vizag)	HINDUJA NATIONAL POWER COPORATION LIMITED	Andhra Pradesh	1040.00	1.3879
53	DISHERGARH POWER STATION	INDIA POWER CORPORATION LIMITED	West Bengal	12.00	0.0000
54	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS Ltd.	Odisha	200.00	0.0000

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
55	IL & FS TAMIL NADU POWER COMPANY Ltd	IL & FS TAMIL NADU POWER COMPANY Ltd	Tamil Nadu	1200.00	0.0345
56	MAHATMA GANDHI,TPP,Jhajjar	JHAJJAR POWER LIMITED	Haryana	1320.00	0.0167
57	O.P. Jindal Super TPP (Stage-I)	JINDAL POWER LIMITED	Chhattisgarh	1000.00	10.5660
58	O.P. Jindal Super TPP (Stage-II)	JINDAL POWER LIMITED	Chhattisgarh	2400.00	6.0410
59	JAYPEE BINA	JAIPRAKASH POWER VENTURES LIMITED	Madhya Pradesh	500.00	0.3487
60	JAYPEE NIGRIE SUPER	JAIPRAKASH POWER VENTURES LIMITED	Madhya Pradesh	1320.00	0.5791
61	JSW Energy Ltd. (Ratnagiri)	JSW Energy Ltd	Maharashtra	1200.00	0.0470
62	JSW Energy Ltd, (Vijayanagar)	JSW Energy Limited	Karnataka	860.00	0.0000
63	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	Odisha	1200.00	5.8452
64	JSW Energy (Barmer) Ltd (Jalipa kapurdi)	JSW Energy (Barmer) Ltd	Rajasthan	1080.00	0.2080
65	JHABUA POWER LIMITED	JHABUA POWER LIMITED	Madhya Pradesh	600.00	1.3860
66	BALLARI	Karnataka Power Corporation Ltd.	Karnataka	1700.00	7.1650
67	RAICHUR	Karnataka Power Corporation Ltd.	Karnataka	1720.00	39.8598
68	KMPCL-Nariyara	M/s KSK MAHANADI POWER COMPANY LIMITED	Chhattisgarh	1800.00	0.3778
69	AMARKANTAK - LANCO	LANCO AMARKANTAK POWER LIMITED	Chhattisgarh	600.00	1.8892
70	LALITPUR TPS	LALITPUR POWER GENERATION COMPANY LIMITED	Uttar Pradesh	1980.00	0.3782
71	LANCO ANPARA POWER LTD	LANCO ANPARA POWER LTD	Uttar Pradesh	1200.00	15.8990
72	MAHAN TPP	MAHAN ENERGEN LTD.	Madhya Pradesh	1200.00	1.4920
73	MAITHON RIGHT BANK TPP	Maithon Power Ltd (DVC+Tata Power JV)	Jharkhand	1050.00	0.4090
74	SANJAY GANDHI	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	1340.00	16.7017

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
75	SATPURA	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	1330.00	85.0422
76	AMARKANTAK MPPGCL	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	210.00	3.6420
77	SHREE SINGAJI TPS	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	2520.00	10.7162
78	BHUSAWAL - MSPGCL	Maharashtra State Power Generation Company Ltd.	Maharashtra	1210.00	6.1954
79	CHANDRAPUR SUPER TPP	Maharashtra State Power Generation Company Ltd.	Maharashtra	2920.00	82.9428
80	KHAPARKHEDA	Maharashtra State Power Generation Company Ltd.	Maharashtra	1340.00	27.9837
81	KORADI	Maharashtra State Power Generation Company Ltd.	Maharashtra	2190.00	32.2607
82	NASHIK	Maharashtra State Power Generation Company Ltd.	Maharashtra	630.00	4.7698
83	PARLI	Maharashtra State Power Generation Company Ltd.	Maharashtra	750.00	1.9105
84	PARAS	Maharashtra State Power Generation Company Ltd.	Maharashtra	500.00	1.4959
85	MCCPL BANDHAKHAR	Maruti Clean Coal & Power Ltd	Chhattisgarh	300.00	0.3286
86	SAI WARDHA POWER GENERATION PVT Ltd.	SAI WARDHA POWER GENERATION PVT Ltd.	Maharashtra	540.00	0.0000
87	RAIGARH TPP	RAIGARH ENERGY GENERATION LTD	Chhattisgarh	600.00	2.4400
88	ANUPPUR	MB POWER (MP) LIMITED	Madhya Pradesh	1200.00	1.4173
89	NEYVELI -I EXPN	N.L.C. LTD	Tamil Nadu	420.00	0.0000
90	NEYVELI - II	N.L.C. LTD	Tamil Nadu	1470.00	6.0533
91	NEYVELI - II EXPN	N.L.C. LTD	Tamil Nadu	500.00	0.0550
92	NEYVELI NEW TPS	N.L.C. LTD	Tamil Nadu	1000.00	0.0000
93	BARSINGSAR LIGNITE	N.L.C.LTD	Rajasthan	250.00	0.0000
94	NLC TAMILNADU POWER LTD. (Tuticorin)	NLC TAMILNADU POWER LIMITED	Tamil Nadu	1000.00	0.0000
95	BHILAI PP-III	NSPCL	Chhattisgarh	500.00	3.9118
96	DADRI	N.T.P.C. LTD	Uttar Pradesh	1820.00	0.1500

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
97	SINGRAULI	N.T.P.C. LTD	Uttar Pradesh	2000.00	78.1880
98	RIHAND	N.T.P.C. LTD	Uttar Pradesh	3000.00	41.2759
99	FEROZE GANDHI UNCHAHAR	N.T.P.C. LTD	Uttar Pradesh	1550.00	6.3020
100	TANDA	N.T.P.C. LTD	Uttar Pradesh	1760.00	2.7480
101	KORBA SUPER - NTPC	N.T.P.C. LTD	Chhattisgarh	2600.00	57.2690
102	VINDHYACHAL	N.T.P.C. LTD	Madhya Pradesh	4760.00	87.2680
103	SIPAT	N.T.P.C. LTD	Chhattisgarh	2980.00	41.0476
104	RAMAGUNDAM - NTPC	N.T.P.C. LTD	Telangana	2600.00	67.7050
105	SIMHADRI	N.T.P.C. LTD	Andhra Pradesh	2000.00	14.0580
106	FARAKKA	N.T.P.C. LTD	West Bengal	2100.00	36.7220
107	KAHALGAON	N.T.P.C. LTD	Bihar	2340.00	69.5410
108	BARH SUPER TPS	N.T.P.C. LTD	Bihar	1980.00	4.1220
109	Nabinagar -NPGC Ltd	N.T.P.C. LTD	Bihar	1980.00	2.2608
110	TALCHER - KANIHA	N.T.P.C. LTD	Odisha	3000.00	92.4564
111	Darlipali	N.T.P.C. LTD	Odisha	1600.00	4.2000
112	MOUDA TPS	N.T.P.C. LTD	Maharashtra	2320.00	1.2760
113	BONGAIGAON	N.T.P.C. LTD	Assam	750.00	1.9180
114	SOLAPUR	N.T.P.C. LTD	Maharashtra	1320.00	0.2820
115	KUDGI	N.T.P.C. LTD	Karnataka	2400.00	2.2920
116	GADARWARA	N.T.P.C. LTD	Madhya Pradesh	1600.00	2.8440
117	BARAUNI	N.T.P.C. LTD	Bihar	720.00	0.4080
118	Lara Super TPP	N.T.P.C. LTD	Chhattisgarh	1600.00	3.8460
119	KHARGONE SUPER TPS	N.T.P.C. LTD	Madhya Pradesh	1320.00	1.3360
120	INDIRA GANDHI SUPER TPP, JHAJJAR	ARAVALI POWER COMPANY PRIVATE LIMITED (NTPC JV)	Haryana	1500.00	3.0070
121	NABINAGAR - BRBCL	BHARATIYA RAIL BIJLEE COMPANY LTD (NTPC JV)	Bihar	750.00	2.3950
122	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC JV)	Bihar	390.00	0.8130
123	MEJA TPP	MEJA URJA NIGAM PVT LTD (NTPC JV)	Uttar Pradesh	1320.00	1.4716

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
124	VALLUR	NTECL (NTPC JV)	Tamil Nadu	1500.00	4.4740
125	Rajpura TPS	NABHA POWER LIMITED,	Punjab	1400.00	0.0140
126	IB VALLEY	O.P.G.C.L.	Odisha	1320.00	26.6717
127	OPG POWER GENERATION PVT LTD	OPG POWER GENERATION PVT LTD.,	Tamil Nadu	414.00	0.0000
128	Guru Hargobind, LEHRA MOHABAT	Punjab State Power Corporation Ltd.	Punjab	920.00	6.9530
129	Guru Gobind Singh TPS, Ropar	Punjab State Power Corporation Ltd.	Punjab	840.00	19.7702
130	GVK POWER (GOINDWALASAHIB) LTD	Punjab State Power Corporation Ltd.	Punjab	540.00	0.4530
131	PRAYAGRAJ	PRAYAGRAJ POWER GENERATION COMPANY LIMITED	Uttar Pradesh	1980.00	2.7702
132	RKM Power Gen Pvt. Ltd. (Uchpinda)	R K M POWERGEN PRIVATE LIMITED	Chhattisgarh	1440.00	1.2950
133	CHHABRA	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1000.00	1.0647
134	SURATGARH TPS	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1500.00	7.1490
135	KALISINDH	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1200.00	0.2248
136	Kota Super TPS	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1240.00	0.5242
137	ROSA Phase -I	Rosa Power Supply Company Ltd.	Uttar Pradesh	1200.00	1.5150
138	AMARAVATI TPS	RATTAN INDIA POWER LTD.,	Maharashtra	1350.00	0.1234
139	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	Karnataka	1600.00	0.9532
140	Raipur TPP	Raipur Energen Limited	Chhattisgarh	1370.00	0.1945
141	Sasan UMPP	Reliance Power Ltd.,	Madhya Pradesh	3960.00	25.0057
142	SEMBCORP ENERGY INDIA LIMITED, Plant-1	SEMBCORP ENERGY INDIA LIMITED	Andhra Pradesh	1320.00	2.8320
143	SEMBCORP ENERGY INDIA LIMITED, Plant-2	SEMBCORP ENERGY INDIA LIMITED	Andhra Pradesh	1320.00	0.8400
144	SKS POWER GENERATION (CHHATTISGARH) LTD	SKS POWER GENERATION (CHHATTISGARH) LTD	Chhattisgarh	600.00	0.3560

SI No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
145	SINGARENI	THE SINGARENI COLLIERIES COMPANY LIMITED	Telangana	1200.00	0.1000
146	CUDDALORE - TAQA	TAQA Neyveli Power Company Pvt. Ltd.	Tamil Nadu	250.00	0.1599
147	JOJOBERA	Tata Power Company Ltd.	Jharkhand	547.50	0.5799
148	TROMBAY	Tata Power Company Ltd.	Maharashtra	750.00	0.0000
149	SABARMATI	TORRENT POWER LTD.	Gujarat	362.00	0.9482
150	TUTICORIN	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	1050.00	42.4539
151	METTUR-I	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	840.00	18.6387
152	METTUR-II	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	600.00	0.0014
153	NORTH CHENNAI-I	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	630.00	0.6984
154	NORTH CHENNAI-II	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	1200.00	0.9768
155	RAMAGUNDAM-B	Telangana State Power Generation Corporation Ltd. (TSGENCO)	Telangana	62.50	0.1262
156	KOTHAGUDEM-V	Telangana State Power Generation Corporation Ltd. (TSGENCO)	Telangana	500.00	39.5295
157	KOTHAGUDEM-VI	Telangana State Power Generation Corporation Ltd. (TSGENCO)	Telangana	500.00	39.5295
158	KOTHAGUDEM-VII	Telangana State Power Generation Corporation Ltd. (TSGENCO)	Telangana	800.00	1.7266
159	KAKATIYA (Stage-I)	Telangana State Power Generation Corporation Ltd. (TSGENCO)	Telangana	500.00	2.2782

Sl No.	Name of TPS	Power Utility	State	Installed Capacity (Mega Watts)	Total Ash
(1)	(2)	(3)	(4)	(5)	(6)
160	KAKATIYA (Stage-II)	Telangana State Power Generation Corporation Ltd. (TSGENCO)	Telangana	600.00	2.7338
161	Bhadradri TPS Manuguru	Telangana State Power Generation Corporation Ltd	Telangana	1080.00	2.6740
162	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	Jharkhand	420.00	0.0515
163	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.	Punjab	1980.00	3.8782
164	ANPARA 'A' & 'B'	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	2630.00	63.6470
165	Harduaganj TPP	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	1330.00	7.7604
166	OBRA	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	1000.00	14.9080
167	PARICHHA	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	920.00	9.2711
168	UDUPI	Udupi Power Corporation Limited	Karnataka	1200.00	0.0323
169	VS LIGNITE POWER PVT LTD	VS LIGNITE POWER PVT LTD	Rajasthan	135.00	0.0000
170	VEDANTA TPP	VEDANTA LTD	Odisha	2400.00	5.2470
171	KOLAGHAT	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	1260.00	1.1730
172	SAGARDIGHI	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	1600.00	7.5511
173	BANDEL	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	275.00	0.1390
174	SANTALDIH	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	500.00	4.2793
175	BAKRESWAR	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	1050.00	10.0312
		Grand Total		205623.00	1677.3019

5.0 CONCLUSIONS & RECOMMENDATIONS :

1. The Half Yearly Fly Ash Utilisation (in %) for the last **Three** years is as shown below :

Year	Fly Ash Utilization (in Percentage)
2020-2021	79.18
2021-2022	81.65
2022-2023	78.14

2. The utilization of fly ash is in the range of 1 to 26 % in making fly ash based Building Products, in Mine filling it is less than 7 %, in the Construction of Roads & Flyovers it is around 21 %. These areas have large potential of fly ash utilization which needs to be explored for increasing the overall utilization of fly ash in the country.
3. A Web Portal has been developed for Fly Ash Generation & its Utilization and Mobile App 'ASH TRACK' has been launched by Ministry of Power as an interface between TPSs and Potential users.
4. A few strategies which need to be adopted to further increase the utilization level of fly ash are given below:
 - Renovation and modernization of coal / lignite based Thermal Power Station needs to include the technological advancement required to ensure development of dry fly ash collection, storage and disposal facilities so that fly ash in dry form could be made available to its users. Renovation and modernization should also include a marketing strategy for the development of fly ash based industries and making available fly ash and fly ash based building products in the nearby markets.
 - The states and districts where Thermal Power Stations are located need to be sensitized to the need for utilization of fly ash and fly ash based building products and take necessary measures to promote them in the construction of buildings, highways / roads / flyovers and other infrastructure projects. Measures can

include policy intervention, planning strategies, fiscal incentives, recognizing specific efforts etc.

- Use of fly ash based building products like fly ash based bricks, blocks, tiles etc. by both Govt. and Public & Private Construction agencies at Central and State levels is required to be ensured especially in construction works within a radius of 300 km of any coal / lignite based Thermal Power Station as mandated in MoEF & CC's Notification of 31st December, 2021. The government agencies responsible for approval of building plans may have to ensure stipulation of a condition in their approval to the effect that only fly ash based building products like bricks / blocks / tiles etc. shall be used in the construction of buildings as prescribed in MoEF & CC's Notification of 31st December, 2021 within a prescribed distance from any Thermal Power Station especially in the construction of large office / commercial buildings and housing projects being developed both in government and private sectors.
- Use of fly ash in the construction of roads, road embankments and flyovers is well established and is slowly picking up. However, its potential is yet to be fully utilized. The use of fly ash in these projects within a radius of 300 km of any Thermal Power Station as mandated in MoEF & CC's Notification of 31st December, 2021 has to be ensured right from project formulation stage and included in tender documents by having a prior tie up with the concerned Thermal Power Station for their requirement. There is a need to sensitize National Highway Authority of India, CPWD, State PWDs and other agencies both at Central and State levels that are involved in the construction of highways, roads, flyovers etc. in this regard.
- Use of fly ash in backfilling / stowing of closed / abandoned / running open cast and underground mines has large potential for utilization of fly ash, especially for pit head Thermal Power Stations which otherwise have limited avenues for fly ash utilization. However, its potential is yet to be fully utilized. The use of fly ash in back filling/stowing of open cast and underground mines by Thermal Power Station as mandated in the MoEF & CC's Notification of 31st December, 2021 has

to be ensured right from initial stage of preparation of mine development plan. Inclusion of fly ash and bottom ash as backfill materials in the guidelines for preparation of mine closure plan is required for which Ministry of Coal and other concerned Ministries / Authorities have to take necessary action. There are environmental and safety concerns for use of fly ash along with overburden (OB) material for back filling of operating open cast mines. These concerns need to be addressed.

- Use of fly ash in the construction of embankments for laying railway lines has also significant potential for large scale utilization of fly ash. There are safety concerns in use of fly ash in the construction of railway embankments having passenger traffic. There is a need to address these concerns by carrying out necessary studies by organizations like Railway Design & Standards Organization (RDSO), a research organization under the Ministry of Railways.
- Thermal Power Stations may ensure the utilization of fly ash and fly ash based building products within the Thermal Power Station for the development of infrastructure like construction of buildings & roads, reclamation of low lying areas etc.
- The use of fly ash in Agriculture and waste land development has large potential but the utilization is below expectation. This may be attributed mainly to reservations in various quarters for use of fly ash in agriculture because of presence of heavy metals and radioactive elements in fly ash however, findings of research projects funded by Fly Ash Unit under Ministry of Science & Technology and studies carried out by other organizations indicate that there are no adverse effects in using fly ash in agriculture. Therefore, these concerns are required to be addressed for increasing the fly ash utilization.
- Thermal Power Stations may explore and promote all possible modes of fly ash utilization at their respective Thermal Power Station for increasing the fly ash utilization in the country in line with MoEF & CC's notifications of 31st December, 2021 and its amendment dated 30th December 2022.

- There is a need to encourage 'Industry–Institute Interactions' for entrepreneur development, creating awareness and organizing training programmes and workshops.
- New emerging areas such as Light Weight Aggregates and Geo-polymers, Coal Beneficiation- Blending and Washing, etc. needs to focus for higher utilization of fly ash in the country.
- In view of large quantity of fly ash generation, utilization of fly ash may be introduced as construction material in academic curriculum of Engineering, Architecture, Mining, Agriculture etc.

* * *

ABBREVIATIONS

- | | | |
|--------------|---|--|
| 1. CEA | : | Central Electricity Authority |
| 2. MoEF & CC | : | Ministry of Environment, Forest & Climate Change |
| 3. MW | : | Mega Watt |
| 4. MoP | : | Ministry of Power |
| 5. MT | : | Million-Tonnes |
| 6. TPS | : | Thermal Power Station |
| 7. APGENCO | : | Andhra Pradesh generation Corporation Ltd. |
| 8. ACBPL | : | Aryan Coal Beneficiation Private Ltd. |
| 9. APL | : | Adani Power Ltd., |
| 10. APCPL | : | Aravali Power Corporation Pvt. Ltd. |
| 11. AMNEPL | : | Abhijeet MADC Nagpur energy Pvt. Ltd. |
| 12. BEPL | : | Bajaj Energy Pvt. Ltd. |
| 13. BSEB | : | Bihar State Electricity Supply Company |

14. BRBCL	:	Bhartiya Rail Bijlee Company Limited
15. CESC	:	Calcutta Electric Supply Company
16. CGPL	:	Coastal Gujarat Power Ltd.
17. CSPGCL	:	Chhattisgarh State Power Generation Company Ltd.
18. DVC	:	Damodar Valley Corporation
19. DPL	:	The Durgapur Projects Ltd.
20. DPSC	:	Dishengarh Power Supply Company Ltd.
21. EPGL	:	Essar Power Gujarat Ltd.
22. GIPCL	:	Gujarat Industries Power Corporation Ltd.
23. GMDCL	:	Gujarat Mineral Development Corporation Ltd.
24. GSECL	:	Gujarat State Electric Corporation Ltd.
25. HPGCL	:	Haryana Power Generation Company Ltd.
26. IPGCL	:	Indraprastha Power Generation Company Ltd.
27. JSEB	:	Jharkhand State Electricity Board.
28. JHPL	:	Jhajjar Power Ltd.
29. JPL	:	Jindal Power Ltd.
30. JSW	:	Jindal Steel Works
31. KPCL	:	Karnataka Power Corporation Ltd.
32. KBUNL	:	Kanti Bijlee Utpadan Nigam Ltd.
33. MPPGCL	:	Madhya Pradesh Power Generating Company Ltd.
34. MPL	:	Maithon Power Ltd.
35. MSPGCL	:	Maharashtra State Power Generating Company Ltd.
36. NLC	:	Neyveli Lignite Corporation
37. NSPCL	:	NTPC - SAIL Power Corporation Ltd.

38. NTPC	:	National Thermal Power Corporation
39. NTECL	:	NTPC – Tamilnadu Electric Company Ltd.
40. OPGCL	:	Odisha Power Generation Corporation Ltd.
41. PSPCL	:	Punjab State Power Corporation Ltd.
42. RRVUNL	:	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.
43. RIL	:	Reliance Infrastructure Ltd.
44. RPSCCL	:	Rosa Power Supply Company Ltd.
45. RWPL	:	Raj West Power Ltd.
46. SEL	:	Sterlite Energy Ltd.
47. SVPPL	:	Shri Vardhman Power Pvt. Ltd.
48. ST-CMS	:	ST-CMS
49. TPCO	:	Tata Power Company Ltd.
50. TUNL	:	Tenunghat Vidyut Nigam Ltd.
51. TNG&D	:	Tamil Nadu Generating and Distribution Corporation Ltd.
52. UPCL	:	Udupi Power Company Ltd.
53. UPRVUNL	:	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.
54. VESPL	:	Vandana Energy Supply Power Ltd.
55. WBPDCCL	:	West Bengal Power Development Corporation Ltd.
56. WPCL	:	Wardha Power Company Ltd.
57. GEPL	:	Gupta Power Company Ltd.
58. VIP	:	Vidarbha Industries Power Ltd.
59. EPL	:	Essar Power Ltd.
60. ACB	:	Aryan Coal Beneficiary Ltd.
61. AP	:	Andhra Pradesh

62. MP	:	Madhya Pradesh
63. TN	:	Tamil Nadu
64. UP	:	Uttar Pradesh
65. WB	:	West Bengal
66. OB	:	Overburden
67. RDSO	:	Research Designs & Standards Organization

																			Annexure-I
FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE 1ST HALF YEAR OF 2022-23 (APRIL-2022 TO SEPTEMBER - 2022)																			
Sl No.	Name of TPS	Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Genaration	Fly Ash Utilization	Percentage Utilization (1st Half of 2022-23)	Percentage Utilisation during 1st Half of 2021-22 (Base Year)	In the making of Fly Ash based Bricks / Blocks / Tiles etc.	In the Manufacture of Portland Pozzolana Cement	In the Construction of Highways & Roads including Flyovers	Part replacement of Cement in Concrete	In Hydro Power Sector in RCC Dam Construction	In the Reclamation of Low Lying Area	In Mine filling	In the Agriculture / Waste Land Development	Others
				(MW)	(MT)	%	(MT)	(MT)	%		(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Dr. N.T.R (Vijayawada)	APGENCO	Andhra Pradesh	1760	4.4993	45.32	2.0389	2.2478	110.24	95.92	1.0787	0.6871	0.3952	0.0179	0.0000	0.0045	0.0000	0.0000	0.0644
2	RAYALSEEMA	APGENCO	Andhra Pradesh	1650	3.3863	42.67	1.4448	1.3705	94.86	69.84	0.2617	1.1088	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	SRI DAMODARAM SANJEEVAIAH	APPDCL	Andhra Pradesh	1600	2.0643	34.54	0.7129	0.5476	76.81	71.04	0.1999	0.2416	0.0232	0.0000	0.0000	0.0830	0.0000	0.0000	0.0000
4	KASAI PALI	ACB (INDIA) LTD	Chhattisgarh	270	0.3866	56.13	0.2170	0.2171	100.05	99.96	0.0240	0.0000	0.1931	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	SVPL Renki	ACB (India) Limited	Chhattisgarh	60	0.0000	-	0.0000	0.0000	-	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
6	CHAKABURA TPP	ACB (INDIA) Ltd.	Chhattisgarh	30	0.0917	62.66	0.0575	0.0575	100.00	100.00	0.0042	0.0000	0.0533	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	Chhattisgarh	30	0.1072	62.54	0.0670	0.0670	100.00	100.00	0.0038	0.0000	0.0632	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8	RATIJA TPS	ACB (INDIA) LIMITED	Chhattisgarh	100	0.2998	61.58	0.1846	0.1846	100.00	100.00	0.0057	0.0000	0.1789	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
9	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	Gujarat	4620	3.6650	5.41	0.1984	0.1989	100.24	101.42	0.0000	0.1231	0.0254	0.0000	0.0000	0.0000	0.0000	0.0000	0.0505
10	TIRODA	ADANI POWER (MAHARASHTRA) LTD.	Maharashtra	3300	7.2645	31.68	2.3011	1.4664	63.73	64.22	0.0665	0.6838	0.0527	0.0000	0.0000	0.6489	0.0093	0.0000	0.0053
11	KAWAI	ADANI POWER RAJASTHAN Ltd.	Rajasthan	1320	2.4981	28.21	0.7047	0.6751	95.80	86.75	0.0763	0.5107	0.0002	0.0000	0.0000	0.0880	0.0000	0.0000	0.0000
12	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	Maharashtra	500	1.1110	30.13	0.3347	0.3115	93.07	89.58	0.0000	0.0000	0.0000	0.1935	0.0000	0.0000	0.0000	0.0000	0.1180
13	Mahadeo Prasad STPP	Adhunik Power & Natural Resources Ltd	Jharkhand	540	1.3150	43.65	0.5740	0.4670	81.36	100.00	0.0210	0.4230	0.0000	0.0230	0.0000	0.0000	0.0000	0.0000	0.0000
14	BARKHERA	Bajaj Energy Private Ltd.	Uttar Pradesh	90	0.1604	39.80	0.0638	0.0633	99.13	100.12	0.0062	0.0516	0.0000	0.0000	0.0000	0.0054	0.0000	0.0000	0.0000
15	KHAMBARKHERA	Bajaj Energy Private Ltd.	Uttar Pradesh	90	0.1537	36.09	0.0555	0.0550	99.15	99.45	0.0053	0.0276	0.0000	0.0000	0.0000	0.0222	0.0000	0.0000	0.0000
16	KUNDARKI	Bajaj Energy Private Ltd.	Uttar Pradesh	90	0.1540	38.52	0.0593	0.0588	99.19	99.77	0.0075	0.0411	0.0000	0.0000	0.0000	0.0102	0.0000	0.0000	0.0000
17	MAQSOODAPUR	Bajaj Energy Private Ltd.	Uttar Pradesh	90	0.1519	38.88	0.0590	0.0581	98.46	99.02	0.0056	0.0455	0.0000	0.0000	0.0000	0.0071	0.0000	0.0000	0.0000
18	UTRAULA	Bajaj Energy Private Ltd.	Uttar Pradesh	90	0.1657	38.72	0.0641	0.0634	98.88	99.92	0.0081	0.0417	0.0000	0.0000	0.0000	0.0136	0.0000	0.0000	0.0000
19	BALCO TPP-III	Bharat Aluminium Company Ltd (BALCO)	Chhattisgarh	1200	1.9106	40.66	0.7769	1.3948	179.54	85.15	0.0332	0.0000	0.1878	0.0000	0.0000	1.1284	0.0205	0.0000	0.0249
20	Budge Budge Generating Station	C.E.S.C.	West Bengal	750	1.7060	33.73	0.5754	0.5754	100.00	100.00	0.0284	0.4558	0.0000	0.0001	0.0000	0.0911	0.0000	0.0000	0.0000
21	Southern Generating Station	C.E.S.C.	West Bengal	135	0.3210	22.64	0.0727	0.0727	100.00	100.00	0.0020	0.0559	0.0000	0.0056	0.0000	0.0092	0.0000	0.0000	0.0000
22	Atal Bihari Vajpayee TPS	C.S.P.G.C.L	Chhattisgarh	1000	1.8670	42.68	0.7968	0.5243	65.80	43.71	0.0587	0.0024	0.3407	0.0000	0.0000	0.1225	0.0000	0.0000	0.0000
23	Dr. Shyama Prasad Mukherjee TPS (DSPM)	C.S.P.G.C.L	Chhattisgarh	500	1.2883	45.03	0.5802	0.2394	41.26	5.83	0.0000	0.0000	0.0090	0.0000	0.0000	0.0926	0.1378	0.0000	0.0000
24	Hasdeo TPP (Korba West)	C.S.P.G.C.L	Chhattisgarh	1340	3.4060	40.53	1.3803	0.4088	29.62	30.00	0.0176	0.0000	0.0888	0.0002	0.0000	0.2690	0.0332	0.0000	0.0000
25	MUTIARA	COASTAL ENERGEN PVT. LTD	Tamil Nadu	1200	0.7543	5.26	0.0397	0.0397	100.00	100.00	0.0332	0.0007	0.0000	0.0000	0.0000	0.0058	0.0000	0.0000	0.0000
26	MUNDRA UMPP	Coastal Gujarat Power Limited	Gujarat	4150	0.3060	8.82	0.0270	0.0270	100.00	106.67	0.0000	0.0121	0.0041	0.0068	0.0000	0.0000	0.0000	0.0000	0.0040
27	DB Power Ltd.	DB Power Ltd.,	Chhattisgarh	1200	2.7341	43.02	1.1762	1.7563	149.32	78.92	0.0105	0.1390	0.0000	0.0002	0.0000	0.2756	1.3310	0.0000	0.0000
28	BOKARO	Damodar Valley Corporation	Jharkhand	500	1.0699	42.57	0.4555	0.6338	139.13	90.25	0.0013	0.1690	0.0142	0.0000	0.0000	0.4494	0.0000	0.0000	0.0000
29	CHANDRAPURA	Damodar Valley Corporation	Jharkhand	500	1.0639	41.65	0.4431	0.6530	147.38	106.43	0.0025	0.2198	0.1451	0.0000	0.0000	0.1048	0.1808	0.0000	0.0000
30	DURGAPUR	Damodar Valley Corporation	West Bengal	210	0.1583	52.07	0.0824	0.0258	31.26	27.85	0.0000	0.0004	0.0254	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Sl No.	Name of TPS	Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage Utilization (1st Half of 2022-23)	Percentage Utilisation during 1st Half of 2021-22 (Base Year)	In the making of Fly Ash based Bricks / Blocks / Tiles etc.	In the Manufacture of Portland Pozzolana Cement	In the Construction of Highways & Roads including Flyovers	Part replacement of Cement in Concrete	In Hydro Power Sector in RCC Dam Construction	In the Reclamation of Low Lying Area	In Mine filling	In the Agriculture / Waste Land Development	Others
				(MW)	(MT)	%	(MT)	(MT)	%		(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
31	MEJIA	Damodar Valley Corporation	West Bengal	2340	5.2830	51.96	2.7449	2.1805	79.44	74.67	0.1294	0.8135	0.2730	0.0000	0.0000	0.0000	0.9646	0.0000	0.0000
32	DURGAPUR STEEL	Damodar Valley Corporation	West Bengal	1000	2.2129	41.32	0.9143	1.5938	174.32	77.00	0.0765	0.3847	0.8691	0.0000	0.0000	0.1852	0.0784	0.0000	0.0000
33	KODERMA	Damodar Valley Corporation	Jharkhand	1000	2.2803	41.34	0.9426	1.6014	169.89	79.14	0.0042	0.1088	0.8685	0.0000	0.0000	0.0000	0.6199	0.0000	0.0000
34	RAGHUNATHPUR	Damodar Valley Corporation	West Bengal	1200	1.9796	47.58	0.9418	0.1049	11.14	7.05	0.0027	0.0457	0.0565	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
35	The Durgapur Projects Power Station(DPPS)	The Durgapur Projects Limited	West Bengal	550	0.8248	40.08	0.3306	0.2515	76.08	76.86	0.0000	0.1992	0.0389	0.0000	0.0000	0.0134	0.0000	0.0000	0.0000
36	DHARIWAL INFRASTRUCTURE Ltd.	Dhariwal Infrastructure Ltd. (Maharashtra)	Maharashtra	600	1.4188	38.19	0.5419	0.5419	100.00	97.38	0.0513	0.4868	0.0037	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
37	SALAYA TPP	Essar Power Gujarat Limited.	Gujarat	1200	0.0797	3.35	0.0027	0.0020	76.35	-	0.0000	0.0020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
38	SURAT LIGNITE	Gujarat Industrial Power corporation Ltd	Gujarat	500	1.3734	15.33	0.2106	0.2106	100.00	100.00	0.2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0085
39	AKRIMOTA	Gujarat Mineral Development corporation Ltd	Gujarat	250	0.3341	16.06	0.0536	0.0743	138.43	176.63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0743	0.0000	0.0000
40	GANDHINAGAR	Gujarat State Electricity corporation Ltd	Gujarat	630	1.2426	34.76	0.4319	1.4258	330.12	256.35	0.2294	0.6390	0.5161	0.0413	0.0000	0.0000	0.0000	0.0000	0.0000
41	KUTCH LIGNITE	Gujarat State Electricity corporation Ltd	Gujarat	150	0.4812	29.63	0.1426	0.1652	115.85	160.18	0.0000	0.0225	0.0000	0.0000	0.0000	0.0000	0.1427	0.0000	0.0000
42	SIKKA	Gujarat State Electricity corporation Ltd	Gujarat	500	0.3841	6.07	0.0233	0.1895	813.30	438.28	0.1435	0.0460	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
43	UKAI	Gujarat State Electricity corporation Ltd	Gujarat	1110	1.9127	35.52	0.6793	0.6923	101.91	91.65	0.3388	0.1831	0.0000	0.0020	0.0000	0.0000	0.0160	0.0000	0.1524
44	WANAKBORI	Gujarat State Electricity corporation Ltd	Gujarat	2270	3.7351	35.69	1.3332	1.4412	108.10	66.47	0.0902	0.5809	0.0000	0.0000	0.0000	0.0000	0.5270	0.0000	0.2431
45	BHAVNAGAR LIGNITE	Gujarat State Electricity corporation Ltd	Gujarat	500	0.6317	10.95	0.0692	0.0535	77.31	75.06	0.0535	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
46	GMR WARORA ENERGY Ltd.	GMR WARORA ENERGY Ltd.	Maharashtra	600	1.2912	34.64	0.4472	0.5654	126.43	138.33	0.1131	0.1478	0.2124	0.0000	0.0000	0.0000	0.0922	0.0000	0.0000
47	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY Ltd.	Odisha	1050	2.4603	44.16	1.0866	1.2591	115.88	136.62	0.3407	0.1518	0.7667	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
48	RAJIV GANDHI TPP HISAR	Haryana Power Generation Corporation Ltd	Haryana	1200	2.3831	40.60	0.9676	0.4087	42.24	141.19	0.0132	0.2269	0.1687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
49	Deen Bandhu Chhotu Ram TPP, Yamuna Nagar	Haryana Power Generation Corporation Ltd	Haryana	600	1.5560	41.12	0.6398	0.3807	59.50	62.35	0.0038	0.2994	0.0000	0.0000	0.0000	0.0294	0.0000	0.0000	0.0481
50	PANIPAT	Haryana Power Generation Corporation Ltd	Haryana	710	1.8405	37.94	0.6983	2.2880	327.64	1641.97	0.0000	0.5809	1.5548	0.0000	0.0000	0.0000	0.0000	0.0000	0.1523
51	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	West Bengal	600	1.6500	37.70	0.6220	0.6220	100.00	100.00	0.0180	0.5230	0.0000	0.0000	0.0000	0.0810	0.0000	0.0000	0.0000
52	HINDUJA NATIONAL POWER COPORATION TPP (Vizag)	HINDUJA NATIONAL POWER COPORATION LIMITED	Andhra Pradesh	1040	1.8299	41.70	0.7631	0.2220	29.10	100.00	0.0721	0.1364	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000
53	DISHERGARH POWER STATION	INDIA POWER CORPORATION LIMITED	West Bengal	12	0.0087	51.10	0.0044	0.0044	100.00		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0044	0.0000	0.0000
54	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS Ltd.	Odisha	200	0.5761	47.01	0.2708	0.2708	100.00	100.00	0.0795	0.0398	0.0005	0.0000	0.0000	0.1508	0.0002	0.0000	0.0000
55	IL & FS TAMIL NADU POWER COMPANY Ltd	IL & FS TAMIL NADU POWER COMPANY Ltd	Tamil Nadu	1200	0.7967	3.75	0.0298	0.0301	100.79	100.00	0.0000	0.0298	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
56	MAHATMA GANDHI TPP, Jhajjar	JHAJJAR POWER LIMITED	Haryana	1320	2.6830	37.77	1.0132	0.9968	98.38	98.29	0.0573	0.8453	0.0000	0.0053	0.0000	0.0000	0.0000	0.0000	0.0890
57	O.P.Jindal Super TPP (Stage-I)	JINDAL POWER LIMITED	Chhattisgarh	1000	2.2547	46.76	1.0544	0.9097	86.28	60.75	0.0012	0.0000	0.0000	0.0000	0.0000	0.1837	0.7248	0.0000	0.0000
58	O.P.Jindal Super TPP (Stage-II)	JINDAL POWER LIMITED	Chhattisgarh	2400	4.6362	46.53	2.1573	1.8446	85.50	60.41	0.0000	0.0885	0.0000	0.0000	0.0000	0.0000	1.7490	0.0000	0.0071

Sl No.	Name of TPS	Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage Utilization (1st Half of 2022-23)	Percentage Utilisation during 1st Half of 2021-22 (Base Year)	In the making of Fly Ash based Bricks / Blocks / Tiles etc.	In the Manufacture of Portland Pozzolana Cement	In the Construction of Highways & Roads including Flyovers	Part replacement of Cement in Concrete	In Hydro Power Sector in RCC Dam Construction	In the Reclamation of Low Lying Area	In Mine filling	In the Agriculture / Waste Land Development	Others
				(MW)	(MT)	%	(MT)	(MT)	%		(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
59	JAYPEE BINA	JAIPRAKASH POWER VENTURES LIMITED	Madhya Pradesh	500	1.0754	37.86	0.4072	0.2366	58.12	100.00	0.0167	0.1744	0.0000	0.0000	0.0000	0.0455	0.0000	0.0000	0.0000
60	JAYPEE NIGRIE SUPER	JAIPRAKASH POWER VENTURES LIMITED	Madhya Pradesh	1320	2.9073	29.86	0.8681	0.6725	77.47	60.85	0.0351	0.6062	0.0000	0.0000	0.0000	0.0313	0.0000	0.0000	0.0000
61	JSW Energy Ltd. (Ratnagiri)	JSW Energy Ltd	Maharashtra	1200	1.5671	7.74	0.1213	0.1147	94.55	100.04	0.0198	0.0247	0.0000	0.0702	0.0000	0.0000	0.0000	0.0000	0.0000
62	JSW Energy Ltd, (Vijayanagar)	JSW Energy Limited	Karnataka	860	0.8068	15.43	0.1245	0.0844	67.84	100.00	0.0145	0.0626	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0073
63	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	Odisha	1200	2.5582	38.57	0.9867	0.7589	76.91	51.24	0.1871	0.0025	0.0466	0.0000	0.0000	0.5226	0.0000	0.0000	0.0000
64	JSW Energy (Barmer) Ltd. (Jalipa Kapurdi)	JSW Energy (Barmer) Ltd	Rajasthan	1080	2.9243	14.98	0.4381	0.4224	96.41	94.44	0.1135	0.3089	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
65	JHABUA POWER LIMITED	JHABUA POWER LIMITED	Madhya Pradesh	600	1.4593	40.00	0.5837	0.2470	42.31	61.27	0.0216	0.1033	0.0053	0.0000	0.0000	0.1168	0.0000	0.0000	0.0000
66	BALLARI	Karnataka Power Corporation Ltd.	Karnataka	1700	2.5918	40.16	1.0407	0.5563	53.45	64.27	0.2559	0.3004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
67	RAICHUR	Karnataka Power Corporation Ltd.	Karnataka	1720	2.1832	44.66	0.9749	1.0925	112.06	97.92	0.5709	0.5198	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
68	KMPCL-Nariyara	M/s KSK MAHANADI POWER COMPANY LIMITED	Chhattisgarh	1800	3.3185	35.28	1.1709	1.0981	93.78	100.63	0.0064	0.6878	0.0038	0.0000	0.0000	0.3870	0.0131	0.0000	0.0000
69	AMARKANTAK - LANCO	LANCO AMARKANTAK POWER LIMITED	Chhattisgarh	600	1.1958	42.69	0.5105	0.6273	122.87	75.76	0.0100	0.1732	0.1046	0.0000	0.0000	0.3395	0.0000	0.0000	0.0000
70	LALITPUR TPS	LALITPUR POWER GENERATION COMPANY LIMITED	Uttar Pradesh	1980	4.0043	38.36	1.5362	1.4386	93.65	93.43	0.0000	1.1260	0.0000	0.0000	0.0000	0.3125	0.0000	0.0000	0.0000
71	LANCO ANPARA POWER LTD	LANCO ANPARA POWER LTD	Uttar Pradesh	1200	2.6605	33.70	0.8965	0.0729	8.14	12.70	0.0075	0.0654	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
72	Mahan TPP	Mahan Energen Ltd	Madhya Pradesh	1200	1.4420	37.13	0.5353	0.1944	36.31	22.53	0.0003	0.0871	0.0000	0.0000	0.0000	0.1071	0.0000	0.0000	0.0000
73	MAITHON RIGHT BANK TPP	Maithon Power Ltd (DVC+Tata Power JV)	Jharkhand	1050	2.3474	42.38	0.9949	0.8693	87.38	74.17	0.0471	0.2540	0.0000	0.0000	0.0000	0.0000	0.5682	0.0000	0.0000
74	SANJAY GANDHI	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	1340	2.8396	36.31	1.0310	0.5133	49.79	89.72	0.0306	0.3544	0.0462	0.0000	0.0029	0.0000	0.0000	0.0000	0.0792
75	SATPURA	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	1330	1.1857	39.27	0.4657	0.4700	100.93	102.98	0.0298	0.0113	0.0050	0.0285	0.0000	0.0000	0.0000	0.0000	0.3955
76	AMARKANTAK MPPGCL	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	210	0.4088	35.53	0.1453	0.0385	26.49	24.13	0.0150	0.0228	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
77	SHREE SINGAJI TPS	Madhya Pradesh Power Generation Company Ltd.	Madhya Pradesh	2520	4.3465	39.98	1.7376	0.3768	21.68	45.62	0.0051	0.2517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1200
78	BHUSAWAL - MSPGCL	Maharashtra State Power Generation Company Ltd.	Maharashtra	1210	2.7139	41.24	1.1193	1.3612	121.62	102.55	0.0950	0.4614	0.1112	0.0000	0.0000	0.0000	0.0000	0.0001	0.6935
79	CHANDRAPUR SUPER TPP	Maharashtra State Power Generation Company Ltd.	Maharashtra	2920	6.3674	38.14	2.4287	0.4385	18.05	20.63	0.0329	0.4042	0.0000	0.0000	0.0000	0.0007	0.0000	0.0000	0.0005
80	KHAPARKHEDA	Maharashtra State Power Generation Company Ltd.	Maharashtra	1340	3.3225	40.01	1.3294	0.5720	43.03	63.65	0.2600	0.0000	0.3120	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
81	KORADI	Maharashtra State Power Generation Company Ltd.	Maharashtra	2190	4.2844	35.57	1.5239	0.8487	55.69	62.96	0.2633	0.0219	0.5635	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
82	NASHIK	Maharashtra State Power Generation Company Ltd.	Maharashtra	630	1.3090	40.15	0.5256	1.4402	274.02	583.91	1.2120	0.2282	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
83	PARLI	Maharashtra State Power Generation Company Ltd.	Maharashtra	750	1.5417	38.43	0.5924	0.8071	136.23	1241.48	0.0963	0.1326	0.0000	0.1283	0.0000	0.0000	0.0000	0.0309	0.4190
84	PARAS	Maharashtra State Power Generation Company Ltd.	Maharashtra	500	1.2442	41.50	0.5164	0.3801	73.62	134.62	0.2506	0.0063	0.1233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
85	MCCPL BANDHAKHAR	Maruti Clean Coal & Power Ltd	Chhattisgarh	300	0.5260	47.37	0.2492	0.2492	100.00	100.00	0.0000	0.0000	0.2492	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
86	ANUPPUR	MB POWER (MP) LIMITED	Madhya Pradesh	1200	2.9553	40.75	1.2044	1.2059	100.12	100.26	0.0500	0.5993	0.0000	0.0000	0.0000	0.5566	0.0000	0.0000	0.0000
87	NEYVELI -I EXPN	N.L.C. LTD	Tamil Nadu	420	1.5686	6.51	0.1021	0.1021	100.00	100.00	0.0201	0.0596	0.0000	0.0000	0.0000	0.0000	0.0081	0.0144	0.0000
88	NEYVELI - II	N.L.C. LTD	Tamil Nadu	1470	5.3616	7.44	0.3988	1.5113	378.96	339.04	0.1203	0.0836	1.1303	0.0000	0.0000	0.0000	0.1153	0.0000	0.0617
89	NEYVELI - II EXPN	N.L.C. LTD	Tamil Nadu	500	1.1323	6.90	0.0781	0.0841	107.68	100.00	0.0620	0.0016	0.0000	0.0000	0.0000	0.0000	0.0164	0.0000	0.0040

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				(MW)	(MT)	%	(MT)	(MT)	%		(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
90	NEYVELI NEW TPS	N.L.C. LTD	Tamil Nadu	1000	3.7690	6.61	0.2490	0.2441	98.02	100.00	0.0495	0.1741	0.0000	0.0000	0.0000	0.0000	0.0204	0.0000	0.0000
91	BARSINGSAR LIGNITE	N.L.C.LTD	Rajasthan	250	0.6441	15.65	0.1008	0.1008	100.00	100.00	0.0211	0.0499	0.0000	0.0000	0.0000	0.0000	0.0297	0.0000	0.0000
92	NLC TAMILNADU POWER LTD. (Tuticorin)	NLC TAMILNADU POWER LIMITED	Tamil Nadu	1000	2.0630	37.27	0.7689	0.7689	100.00	99.92	0.2016	0.5655	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
93	BHILAI PP-III	NSPCL	Chhattisgarh	500	1.4463	38.18	0.5521	0.7940	143.80	52.53	0.0767	0.3145	0.4028	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
94	DADRI	N.T.P.C. LTD	Uttar Pradesh	1820	3.6239	33.64	1.2189	1.0687	87.67	99.31	0.1704	0.4361	0.0000	0.4094	0.0000	0.0000	0.0000	0.0528	0.0000
95	SINGRAULI	N.T.P.C. LTD	Uttar Pradesh	2000	4.9863	31.08	1.5499	0.3450	22.26	22.55	0.0016	0.0023	0.2909	0.0000	0.0000	0.0000	0.0002	0.0000	0.0500
96	RIHAND	N.T.P.C. LTD	Uttar Pradesh	3000	7.1703	27.13	1.9454	0.8082	41.55	46.21	0.0453	0.0580	0.5515	0.0000	0.0000	0.0534	0.0000	0.0000	0.1000
97	FEROZE GANDHI UNCHAHR	N.T.P.C. LTD	Uttar Pradesh	1550	3.3021	33.86	1.1179	0.7847	70.19	131.58	0.0009	0.3734	0.2789	0.0914	0.0000	0.0000	0.0000	0.0000	0.0402
98	TANDA	N.T.P.C. LTD	Uttar Pradesh	1760	4.0018	39.53	1.5819	1.6136	102.00	108.95	0.0015	0.3379	1.2636	0.0000	0.0000	0.0107	0.0000	0.0000	0.0000
99	KORBA SUPER - NTPC	N.T.P.C. LTD	Chhattisgarh	2600	6.9089	37.00	2.5562	0.5008	19.59	63.96	0.0244	0.0000	0.3767	0.0000	0.0000	0.0000	0.0997	0.0000	0.0000
100	VINDHYACHAL	N.T.P.C. LTD	Madhya Pradesh	4760	11.9407	33.38	3.9857	0.7276	18.26	38.11	0.1035	0.0141	0.2369	0.0000	0.0000	0.2205	0.1525	0.0000	0.0000
101	SIPAT	N.T.P.C. LTD	Chhattisgarh	2980	6.8272	37.79	2.5801	0.9338	36.19	30.11	0.1259	0.0133	0.6471	0.0000	0.0000	0.1473	0.0002	0.0000	0.0000
102	RAMAGUNDAM - NTPC	N.T.P.C. LTD	Telangana	2600	5.0576	40.53	2.0499	1.8965	92.52	103.12	0.1292	0.3684	1.2593	0.0000	0.0000	0.0039	0.1356	0.0000	0.0000
103	SIMHADRI	N.T.P.C. LTD	Andhra Pradesh	2000	4.8520	34.05	1.6521	3.1653	191.59	92.84	0.2934	0.0998	2.7577	0.0144	0.0000	0.0000	0.0000	0.0000	0.0000
104	FARAKKA	N.T.P.C. LTD	West Bengal	2100	3.7657	30.32	1.1419	2.6053	228.14	131.72	0.0015	0.0831	2.4148	0.0000	0.0000	0.0000	0.0000	0.0000	0.1059
105	KAHALGAON	N.T.P.C. LTD	Bihar	2340	5.5677	34.26	1.9074	2.2838	119.73	71.09	0.0515	0.4049	1.7423	0.0000	0.0000	0.0000	0.0000	0.0850	0.0000
106	BARH SUPER TPS	N.T.P.C. LTD	Bihar	1980	4.5729	38.00	1.7377	2.5696	147.88	112.04	0.1003	0.2192	2.1666	0.0000	0.0000	0.0000	0.0000	0.0000	0.0835
107	Nabinagar -NPGC Ltd	N.T.P.C. LTD	Bihar	1980	3.7894	33.23	1.2592	0.6784	53.88	51.86	0.0039	0.5438	0.1224	0.0000	0.0000	0.0000	0.0000	0.0000	0.0083
108	TALCHER - KANIHA	N.T.P.C. LTD	Odisha	3000	8.2764	39.06	3.2324	1.6723	51.74	62.08	0.0712	0.0000	0.8620	0.0000	0.0000	0.3952	0.3438	0.0000	0.0000
109	Darlipali	N.T.P.C. LTD	Odisha	1600	3.8120	48.05	1.8316	0.3379	18.45	33.48	0.0000	0.0000	0.3379	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
110	MOUDA TPS	N.T.P.C. LTD	Maharashtra	2320	5.1960	32.81	1.7050	1.0870	63.75	96.30	0.1347	0.2070	0.6610	0.0000	0.0000	0.0720	0.0013	0.0000	0.0110
111	BONGAIGAON	N.T.P.C. LTD	Assam	750	1.6419	33.72	0.5536	0.2893	52.26	59.13	0.0478	0.2415	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
112	SOLAPUR	N.T.P.C. LTD	Maharashtra	1320	1.9205	35.71	0.6858	0.6959	101.47	93.23	0.2738	0.3738	0.0000	0.0205	0.0000	0.0000	0.0000	0.0000	0.0278
113	KUDGI	N.T.P.C. LTD	Karnataka	2400	3.9221	29.04	1.1389	0.8213	72.11	71.07	0.0037	0.4782	0.0000	0.0807	0.0000	0.0000	0.0000	0.0000	0.2587
114	GADARWARA	N.T.P.C. LTD	Madhya Pradesh	1600	3.1893	29.56	0.9426	0.3897	41.35	4.03	0.0025	0.0455	0.3377	0.0000	0.0000	0.0040	0.0000	0.0000	0.0000
115	BARAUNI	N.T.P.C. LTD	Bihar	720	1.1300	43.36	0.4900	0.3735	76.24	89.81	0.0036	0.2469	0.1146	0.0000	0.0000	0.0000	0.0000	0.0001	0.0083
116	LARA SUPER TPP	N.T.P.C. LTD	Chhattisgarh	1600	4.2892	42.62	1.8282	0.3034	16.60	30.22	0.0008	0.0000	0.2982	0.0000	0.0000	0.0043	0.0000	0.0000	0.0001
117	KHARGONE SUPER TPS	N.T.P.C. LTD	Madhya Pradesh	1320	1.8962	35.83	0.6795	0.4605	67.77	48.30	0.0014	0.2958	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1632
118	INDIRA GANDHI SUPER TPP, JHAJJAR	ARAVALI POWER COMPANY PRIVATE LIMITED (NTPC JV)	Haryana	1500	3.1327	32.74	1.0256	1.0750	104.82	91.71	0.1660	0.6848	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2243
119	NABINAGAR - BRBCL	BHARATIYA RAIL BIJLEE COMPANY LTD (NTPC JV)	Bihar	750	2.4592	41.33	1.0164	0.7445	73.25	35.21	0.0176	0.1628	0.5641	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
120	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC JV)	Bihar	390	0.9243	38.05	0.3517	0.5512	156.75	134.73	0.0226	0.0000	0.4832	0.0400	0.0000	0.0000	0.0000	0.0000	0.0055
121	MEJA TPP	MEJA URJA NIGAM PVT LTD (NTPC JV)	Uttar Pradesh	1320	1.9731	32.74	0.6459	0.3683	57.02	68.97	0.0003	0.3339	0.0037	0.0000	0.0000	0.0039	0.0000	0.0000	0.0265

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				(MW)	(MT)	%	(MT)	(MT)	%		(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
122	VALLUR	NTECL (NTPC JV)	Tamil Nadu	1500	3.6003	41.25	1.4851	1.1942	80.41	99.95	0.1786	0.4040	0.0000	0.0634	0.0000	0.0000	0.0000	0.0000	0.5482
123	Rajpura TPS	NABHA POWER LIMITED,	Punjab	1400	3.1911	34.43	1.0987	1.0970	99.85	100.99	0.0880	0.8426	0.1576	0.0089	0.0000	0.0000	0.0000	0.0000	0.0000
124	IB VALLEY	O.P.G.C.L.	Odisha	1320	1.1161	47.29	0.5278	0.1384	26.22	25.61	0.0013	0.0000	0.0000	0.0000	0.0000	0.1340	0.0000	0.00000	0.0031
125	OPG POWER GENERATION PVT LTD	OPG POWER GENERATION PVT LTD.,	Tamil Nadu	414	0.2294	19.19	0.0440	0.0440	100.00	100.00	0.0352	0.0088	0.0000	0.0000	0.0000	0.0000	0.0000	0.00000	0.00000
126	Guru Hargobind, LEHRA MOHABAT	Punjab State Power Corporation Ltd.	Punjab	920	1.2965	41.14	0.5334	0.3466	64.98	72.93	0.0678	0.2787	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
127	Guru Gobind Singh TPS, Ropar	Punjab State Power Corporation Ltd.	Punjab	840	1.4393	38.95	0.5607	0.3917	69.86	292.45	0.0014	0.3720	0.0085	0.0000	0.0000	0.0099	0.0000	0.0000	0.0000
128	GVK POWER (GOINDWALASAHIB) LTD	Punjab State Power Corporation Ltd.	Punjab	540	0.7001	33.38	0.2337	0.2089	89.39	73.45	0.0584	0.1395	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0110
129	PRAYAGRAJ	PRAYAGRAJ POWER GENERATION COMPANY LIMITED	Uttar Pradesh	1980	3.9131	34.52	1.3509	0.7197	53.27	70.89	0.0003	0.7147	0.0000	0.0000	0.0000	0.0047	0.0000	0.0000	0.0000
130	RAIGARH TPP	RAIGARH ENERGY GENERATION LTD	Chhattisgarh	600	1.3754	41.24	0.5673	0.2029	35.76	47.89	0.0000	0.0000	0.0000	0.0000	0.0000	0.2029	0.0000	0.0000	0.0000
131	RKM Power Gen Pvt. Ltd. (Uchpinda)	R K M POWERGEN PRIVATE LIMITED	Chhattisgarh	1440	2.2858	47.69	1.0902	1.1493	105.42	99.99	0.0014	0.0048	0.0000	0.0000	0.0000	0.3811	0.7620	0.0000	0.0000
132	CHHABRA	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1000	1.6692	33.48	0.5589	0.2730	48.84	71.05	0.0982	0.1577	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0171
133	SURATGARH TPS	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1500	2.5923	41.74	1.0820	0.9655	89.24	371.85	0.0000	0.6043	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3613
134	KALISINDH	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1200	2.0467	35.80	0.7326	0.5441	74.26	86.88	0.0588	0.4030	0.0000	0.0000	0.0000	0.0336	0.0000	0.0000	0.0486
135	Kota Super TPS	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Rajasthan	1240	2.9311	36.10	1.0582	1.2705	120.06	113.14	0.3545	0.7402	0.0689	0.0042	0.0000	0.0000	0.0000	0.0000	0.1028
136	ROSA Phase -I	Rosa Power Supply Company Ltd.	Uttar Pradesh	1200	2.3670	36.33	0.8600	0.6310	73.37	82.42	0.0000	0.4980	0.0000	0.0000	0.0000	0.1200	0.0000	0.0000	0.0130
137	AMARAVATI TPS	RATTAN INDIA POWER LTD.,	Maharashtra	1350	2.7318	39.73	1.0853	0.9619	88.63	39.23	0.2654	0.0063	0.0000	0.0124	0.0000	0.6779	0.0000	0.0000	0.0000
138	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	Karnataka	1600	1.4345	41.45	0.5945	0.5270	88.64	79.85	0.1765	0.3505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
139	Raipur TPP	Raipur Energen Limited	Chhattisgarh	1370	2.4731	38.32	0.9477	0.9203	97.11	89.32	0.0125	0.5756	0.0059	0.0000	0.0000	0.0484	0.2778	0.0000	0.0000
140	Sasan UMPP	Reliance Power Ltd.,	Madhya Pradesh	3960	8.8755	29.10	2.5832	0.0176	0.68	73.34	0.0157	0.0000	0.0000	0.0019	0.0000	0.0000	0.0000	0.0000	0.0000
141	SAI WARDHA POWER GENERATION PVT Ltd.	SAI WARDHA POWER GENERATION PVT Ltd.	Maharashtra	540	0.8900	30.82	0.2743	0.2743	100.00	100.00	0.0199	0.2035	0.0000	0.0031	0.0000	0.0000	0.0478	0.0000	0.0000
142	SEBNCORP ENERGY INDIA LIMITED, Plant - 1	SEBNCORP ENERGY INDIA LIMITED	Andhra Pradesh	1320	2.8126	30.21	0.8497	0.8494	99.96	99.99	0.1175	0.6385	0.0000	0.0043	0.0000	0.0891	0.0000	0.0000	0.0000
143	SEBNCORP ENERGY INDIA LIMITED, Plant - 2	SEBNCORP ENERGY INDIA LIMITED	Andhra Pradesh	1320	2.4381	12.18	0.2970	0.3373	113.58		0.1548	0.1176	0.0000	0.0000	0.0000	0.0650	0.0000	0.0000	0.0000
144	SKS POWER GENERATION (CHHATTISGARH) LTD	SKS POWER GENERATION (CHHATTISGARH) LTD	Chhattisgarh	600	0.3061	43.24	0.1323	0.1862	140.68	96.76	0.0023	0.0000	0.0000	0.0000	0.0000	0.0899	0.0940	0.0000	0.0000
145	SINGARENI	THE SINGARENI COLLIERIES COMPANY LIMITED	Telangana	1200	2.6705	38.75	1.0347	1.0351	100.03	108.05	0.2961	0.3875	0.0000	0.0000	0.0000	0.0000	0.2111	0.0000	0.1403
146	CUDDALORE - TAQA	TAQA Neyveli Power Company Pvt. Ltd.	Tamil Nadu	250	0.8919	3.32	0.0296	0.0349	117.94	366.08	0.0082	0.0194	0.0000	0.0000	0.0000	0.0000	0.0073	0.0000	0.0000
147	JOJOBERA	Tata Power Company Ltd.	Jharkhand	547.5	1.3643	41.59	0.5675	0.4244	74.79	92.58	0.0028	0.2427	0.0473	0.0310	0.0000	0.1006	0.0000	0.0000	0.0000
148	TROMBAY	Tata Power Company Ltd.	Maharashtra	750	1.2260	3.06	0.0375	0.0361	96.27	89.40	0.0036	0.0000	0.0000	0.0261	0.0000	0.0000	0.0000	0.0002	0.0062
149	SABARMATI	TORRENT POWER LTD.	Gujarat	362	0.7824	23.88	0.1868	0.4361	233.39	100.00	0.0000	0.1530	0.1841	0.0000	0.0000	0.0000	0.0000	0.0989	0.0000

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				(MW)	(MT)	%	(MT)	(MT)	%		(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
150	TUTICORIN	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	1050	2.0031	46.07	0.9229	0.2793	30.27	53.58	0.0052	0.2550	0.0000	0.0000	0.0000	0.0191	0.0000	0.0000	0.0000
151	METTUR-I	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	840.0	2.0902	37.37	0.7811	0.8096	103.65	91.37	0.1111	0.3311	0.0000	0.0000	0.0000	0.0116	0.0000	0.0000	0.3558
152	METTUR-II	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	600	1.0027	37.55	0.3765	0.2636	70.00	100.00	0.0114	0.2521	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
153	NORTH CHENNAI-I	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	630	1.0992	41.65	0.4578	0.4766	104.12	202.04	0.0080	0.0590	0.3936	0.0161	0.0000	0.0000	0.0000	0.0000	0.0000
154	NORTH CHENNAI-II	Tamil Nadu Generation & Distribution Corporation Ltd. (TANGEDCO)	Tamil Nadu	1200	1.9359	37.17	0.7196	0.6427	89.32	122.75	0.1558	0.4764	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
155	RAMAGUNDAM-B	Telangana State Power Generation Corporation Ltd.(TSGENCO)	Telangana	62.5	0.1241	42.12	0.0523	0.0060	11.52	115.28	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0060
156	KOTHAGUDEM-V	Telangana State Power Generation Corporation Ltd.(TSGENCO)	Telangana	500	1.3033	49.95	0.6510	0.1784	27.41	51.14	0.1159	0.0161	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0464
157	KOTHAGUDEM-VI	Telangana State Power Generation Corporation Ltd.(TSGENCO)	Telangana	500	1.0970	40.52	0.4446	0.2939	66.11	57.68	0.2667	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0271
158	KOTHAGUDEM-VII	Telangana State Power Generation Corporation Ltd.(TSGENCO)	Telangana	800	0.7945	32.42	0.2576	0.1336	51.85	41.23	0.0066	0.1270	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
159	KAKATIYA (Stage-I)	Telangana State Power Generation Corporation Ltd.(TSGENCO)	Telangana	500	0.7336	37.80	0.2773	0.2285	82.42	70.59	0.1507	0.0487	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0291
160	KAKATIYA (Stage-II)	Telangana State Power Generation Corporation Ltd.(TSGENCO)	Telangana	600	1.3281	37.82	0.5023	0.3560	70.87	70.26	0.1664	0.0793	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.1102
161	Bhadradri TPS Manuguru	Telangana State Power Generation Corporation Ltd	Telangana	1080	1.9586	43.79	0.8577	0.0718	8.38		0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0372
162	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	Jharkhand	420	0.9479	32.41	0.3072	0.2557	83.25	82.56	0.0000	0.0000	0.0000	0.0000	0.0000	0.2557	0.0000	0.0000	0.0000
163	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.,	Punjab	1980	4.0879	39.89	1.6308	1.2450	76.34	116.11	0.6603	0.5847	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
164	ANPARA 'A' & 'B'	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	2630	6.8968	35.76	2.4660	0.0353	1.43	3.98	0.0000	0.0309	0.0000	0.0000	0.0000	0.0044	0.0000	0.0000	0.0000
165	Harduaganj TPP	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	1330	2.2651	42.05	0.9524	0.3069	32.23	107.22	0.0264	0.1311	0.0000	0.0000	0.0000	0.1494	0.0000	0.0000	0.0000
166	OBRA	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	1000	2.0453	37.02	0.7572	0.0439	5.79	5.08	0.0069	0.0282	0.0000	0.0000	0.0000	0.0087	0.0000	0.0000	0.0000
167	PARICHAHA	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd. (UPRVUNL)	Uttar Pradesh	920	2.0050	42.89	0.8598	0.5082	59.11	62.86	0.0495	0.3914	0.0557	0.0000	0.0000	0.0116	0.0000	0.0000	0.0000
168	UDUPI	Udupi Power Corporation Limited	Karnataka	1200	0.2008	9.07	0.0182	0.0162	88.92	101.42	0.0035	0.0045	0.0000	0.0074	0.0000	0.0000	0.0000	0.0000	0.0008
169	VS LIGNITE POWER PVT LTD	VS LIGNITE POWER PVT LTD	Rajasthan	135	0.2858	28.79	0.0823	0.0823	100.00	100.00	0.0027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0796
170	VEDANTA TPP	VEDANTA LTD	Odisha	2400	3.4094	42.49	1.4488	1.6641	114.86	94.87	0.0014	0.0756	0.2614	0.0000	0.0000	1.1451	0.0000	0.0000	0.1805
171	KOLAGHAT	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	1260	1.4496	41.99	0.6087	0.6702	110.10	110.10	0.0337	0.2106	0.0000	0.0000	0.0000	0.4260	0.0000	0.0000	0.0000
172	SAGARDIGHI	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	1600	3.5625	28.28	1.0075	1.3980	138.75	72.22	0.6192	0.0000	0.0000	0.0000	0.0000	0.7787	0.0000	0.0000	0.0000
173	BANDEL	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	275	0.7036	44.53	0.3133	0.3032	96.78	77.10	0.0109	0.1630	0.0487	0.0000	0.0000	0.0807	0.0000	0.0000	0.0000
174	SANTALDIH	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	500	1.4084	55.03	0.7751	0.4279	55.21	51.08	0.0223	0.3528	0.0000	0.0000	0.0000	0.0528	0.0000	0.0000	0.0000
175	BAKRESWAR	The West Bengal Power Development Corporation Ltd. (WBPDCCL)	West Bengal	1050	2.3596	31.93	0.7533	0.3631	48.20	31.08	0.0275	0.2943	0.0000	0.0000	0.0000	0.0413	0.0000	0.0000	0.0000
		Grand Total		205623.00	401.1493	35.41	142.0653	111.0124	78.14		14.4609	37.6957	29.2505	1.3715	0.0029	12.3519	9.6108	0.2823	5.9859