



**भारत सरकार**  
**Government of India**  
**विद्युत मंत्रालय**  
**Ministry of Power**

**REPORT ON FLY ASH GENERATION AT COAL / LIGNITE  
BASED THERMAL POWER STATIONS AND ITS  
UTILIZATION IN THE COUNTRY FOR THE YEAR 2021 - 22**

**CENTRAL ELECTRICITY AUTHORITY**  
**CIVIL DESIGN DIVISION**  
**NEW DELHI**

**AUGUST- 2022**

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



केन्द्रीय विद्युत प्राधिकरण  
भारत सरकार  
विद्युत मंत्रालय  
सेवा भवन, आर.के, पुरम  
नई दिल्ली-110066  
**Central Electricity Authority**  
Ministry of Power  
Sewa Bhawan, R. K. Puram  
New Delhi-110066

## **FOREWORD**

Presently, the Coal and Lignite based Power Generating Stations contribute more than 69 % in the total electricity generation in the country. In near future also, the coal-based generation is likely to remain substantial. Indian coal has high ash content, of the order of 30–60 %, resulting in generation of a large quantity of fly ash in coal and lignite based Thermal Power Stations. At present, ash utilization is lower than its production on all India basis. As a result, there is a surplus ash stock, which has been increasing every year. The management of fly ash has been a matter of concern in view of requirement of large area of land for its storage and disposal as well as its potential to cause air and water pollution.

To address the above concerns, the Ministry of Environment & Forests and Climate Change (MoEF & CC) has issued various Notifications on fly ash utilization prescribing therein the targets for fly ash utilization for coal / lignite based Thermal Power Stations with an aim to achieve 100% utilization in a phased manner. Central Electricity Authority (CEA) has been monitoring the status of fly ash generation and its utilization in the country since 1996.

The utilization of fly ash has increased from about 6.64 Million Tonnes in 1996-97 to a level of 259.86 Million Tonnes in 2021-22. The percentage of fly ash utilization during 2021-22 was 95.95%. To materialize 100 % utilization of fly ash on all India basis, in line with MoEF & CC Notifications, extra efforts need to be put in by all Thermal Power Stations.

I wish to express my sincere thanks to all the Power Utilities and Thermal Power stations in the country for providing data/information on fly ash generation and its utilization to CEA for bringing out this report. I believe that this report would be useful for all the stakeholders and pave the way to achieve for 100% utilisation of fly ash in the country.

  
(Ghanshyam Prasad)

New Delhi  
4 August 2022



M. A. K. P. Singh

दूरभाष (का०)  
TELEPHONE (O) 9821860937  
TELEFAX (O) 011-26732701

सदस्य (जल विद्युत)

तथा पदेन अपर सचिव भारत सरकार  
केन्द्रीय विद्युत प्राधिकरण  
सेवा भवन, रामाकृष्णा पुरम्

MEMBER (Hydro)  
& EX-OFFICIO ADDL. SECRETARY TO THE GOVERNMENT OF INDIA  
CENTRAL ELECTRICITY AUTHORITY  
SEWA BHAWAN, R. K. PURAM

नई दिल्ली - 110066

05.08.2022

NEW DELHI-110066

### PREFACE

Management of fly ash at coal/lignite based Thermal Power Stations (TPS) in the country is a challenging task in view of large quantity of ash being generated and target of achieving 100% utilization of fly ash in a time bound manner as prescribed in MoEF Notification of 14<sup>th</sup> September, 1999 and its subsequent amendments. The land to be acquired for creating ash dykes for ash disposal facilities at thermal power plants is becoming difficult. Fly ash, if not managed well, may pose environmental challenges.

Fly Ash Mission, a Technology Project in Mission Mode of Government of India, was commissioned during 1994 as a joint activity of Department of Science & Technology (DST), Ministry of Power (MoP) and Ministry of Environment & Forests (MoEF) with Department of Science & Technology as nodal agency. The Fly Ash Mission was set up to promote research in the area of fly ash utilization so that fly ash could be gainfully utilized instead of its disposal in ash ponds. MoEF&CC,G of issued 1<sup>st</sup> Notification on Fly Ash Utilization in September 1999, which was subsequently amended in 2003, 2009 and 2016 stipulating targets for fly ash utilization for Thermal Power Stations and use of fly ash by construction agencies within a prescribed radius of any TPS. The latest Notification issued on 31<sup>st</sup> December 2021 by MoEF & CC on utilization of Fly ash shall be applicable for F.Y. 2022-23 onwards.

These initiatives and policy decisions by GoI have led to increased utilization of fly ash in various construction activities like making of fly ash based building products, manufacturing of Portland Pozzolana Cement, construction of roads / highways / flyovers, reclamation of low lying areas, backfilling and stowing of mines, wasteland development, construction of Roller Compacted concrete dams etc. Though in 2021 - 22, the ash utilization level has reached to about 95.95 % (259.86 Million Tonnes) as compared to less than 10% (6.64 MT) during the year 1996-97, a lot more needs to be done.


This report brings out the present status of fly ash generation at 200 coal / lignite based Thermal Power Stations and its utilization in the country. It also brings out the status of the level of fly ash utilization achieved by various thermal power stations in the country vis-à-vis targets prescribed in MoEF's Notification of 14<sup>th</sup> September 1999 and its subsequent amendments in 2003, 2009 & 2016. I am confident that the report will also be useful to all the stakeholders involved in fly ash management in the country for planning the utilization of fly ash and having necessary tie-up with the concerned thermal power station.

To be continued.....

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं  
Save Energy for Benefit of Self and Nation

Data collection, its compilation, reconciliation & analysis is quite a vast task. Moreover, to provide a dependable / accurate data in desired formats is equally a major job. We acknowledge and express our gratitude to all Power Utilities and Thermal Power Stations for furnishing data in a timely manner. I would also like to place on record my appreciation of the efforts made by the officers and staff of Civil Design Division. We solicit suggestions from all concerned for further improving the presentation made in the report. All suggestions / views as well as intimations for any unintended errors observed in this document may kindly be sent to the Chief Engineer, Civil Design Division, Central Electricity Authority, 9th Floor, North Wing, Sewa Bhawan, R.K. Puram, New Delhi- 110066 (E-mail ID: tcdcea@nic.in).

New Delhi  
August, 2022

  
(M. A. K. P. Singh)



Anil Jain

तार/Telegrams : 'के.वि.प्रा.' CENTELEC  
फैक्स/Fax : 26197267

भारत सरकार  
GOVERNMENT OF INDIA  
केन्द्रीय विद्युत प्राधिकरण  
CENTRAL ELECTRICITY AUTHORITY  
विद्युत मंत्रालय  
MINISTRY OF POWER  
सेवा भवन, रामाकृष्णा पुरम्  
SEWA BHAWAN, RAMAKRISHNA PURAM

नई दिल्ली-110066, दिनांक :  
NEW DELHI-110066, Dated :


## **ACKNOWLEDGEMENT**

I express my sincere thanks to all the power utilities and the Thermal Power Stations for furnishing the data and information for bringing out this report on fly ash generation and its utilization in the country for the year 2021-22. Timely furnishing the required data and information by various Power Utilities and Thermal Power Stations to CEA is important for bringing out the report.

I am grateful to the Chairperson, CEA / Member (Hydro), CEA for the valuable suggestions and guidance in the preparation of this report.

I also express my thanks to the team comprising Shri Baleshwar Thakur, Director, Shri P.S. Mohan Kumar, Deputy Director, Shri Manoj Kumar Choudhary, Assistant Director-II and other officers of TCD Division, CEA in the preparation of this report.

New Delhi  
AUGUST, 2022

  
(Anil Jain)  
Chief Engineer (CD)

---

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं  
Save Energy for Benefit of Self and Nation

---

# CONTENTS

<b>PARA No.</b>	<b>DESCRIPTION</b>	<b>PAGE No.</b>
1.0	Background	1
2.0	Ash Generation & Utilization during the Year 2021 - 22	2
2.1	A Brief Summary	2
2.2	Data Provided by Thermal Power Units Commissioned during the Year 2021 - 22	3
2.3	Retirement of Thermal Power Units during 2021 - 22	3
2.4	Power Utility wise status of fly ash generation & its utilization during the Year 2021 - 22	4
2.5	State-wise status of fly ash generation & its utilization during the Year 2021 - 22	9
3.0	Targets of fly ash utilization as per MoEF's Notification dated 3 <sup>rd</sup> November 2009	10
3.1	Thermal Power Station in operation as on 03.11.2009	11
3.2	Thermal Power Stations Commissioned after 03.11.2009	11
4.0	Target Of Fly Ash Utilization During 2020-21 as Per MoEF's Notification Of 3rd November 2009	12
4.1	Status of Utilization of Fly Ash during the Year 2021 - 22	13
4.2	Range of Fly Ash utilization during the year 2021 - 22	13
4.3	Thermal Power Stations that have achieved 100% or more Fly Ash utilization during the year 2021 - 22	14
4.4	Thermal Power Stations with ash utilization in the range of 90% to less than 100% during the year 2021 - 22	19
4.5	Thermal Power Stations with ash utilization in the range of 70% to less than 90% during the year 2021 - 22	21
4.6	Thermal Power Stations with ash utilization in the range of 50% to less than 70% during the year 2021 - 22	23
4.7	Thermal Power Stations with ash utilization below 50% during the year 2021 - 22	25

<b>PARA No.</b>	<b>DESCRIPTION</b>	<b>PAGE No.</b>
4.8	Thermal Power Stations with <u>NO ASH</u> generation during the year 2021 - 22	27
5.0	Fly Ash Utilization status as per Notification of 3 <sup>rd</sup> November 2009 during the year 2021 - 22 (Target achieved and NOT achieved)	28
6.0	Modes of Fly Ash utilization during the year 2021 - 22	42
7.0	Progressive fly ash generation & utilization during the period from 1996-97 to 2021 - 22	43
8.0	Progressive fly ash utilization in various modes / sectors during the period from 1998-99 to 2021 - 22	47
8.1	Cement Industry	47
8.2	Reclamation of Low Lying Area	48
8.3	Construction of Road, Embankments, Flyovers, and Raising of Ash dykes	49
8.4	Back Filling / Stowing of Mines	50
8.5	Building materials like Bricks, Blocks, Tiles, etc.	51
8.6	Agriculture	52
9.0	Legacy Ash as on 31.03.2022	53
10.0	Web-Based Monitoring System and a Mobile Application for Utilization Of Fly Ash	65
11.0	Recommendation of Expert Committee	65
12.0	Conclusions & Recommendations	66
13.0	Abbreviations	68
Annexure-I	Fly Ash generation and its Utilization at Coal / Lignite based thermal power stations in the country during the year 2021 - 22 (Power Utility Wise)	
Annexure-II	Fly Ash Generation and its Utilization at Coal / Lignite based thermal power stations in the country during the year 2021 - 22 (State Wise)	

# LIST OF TABLES

TABLE No.	TITLE OF TABLE	PAGE No.
I	Summary Of Fly Ash Generation and Utilization during the Year 2021 - 22	2
II	Thermal Power units Commissioned during the year 2021 - 22	3
III	Thermal Power Units retired during the year 2021-22	4
IV	Power Utility wise fly ash generation & utilization for the year 2021 - 22	4
V	State-wise fly ash generation & utilization during the year 2021 - 22	9
VI	Targets for fly ash utilization for Thermal Power Station in operation as on 03.11.2009	11
VII	Targets for fly ash utilization for Thermal Power Station commissioned after 03.11.2009	12
VIII	Status of utilization of fly ash as per MoEF's notification dated 3rd November 2009 for the year 2021 - 22	13
IX	Range of Percentage Fly ash utilization during the year 2021 - 22	14
X	Thermal Power Stations with fly ash utilization level of 100% or more during the year 2021 - 22	14
XI	Thermal Power Stations with Fly Ash Utilization in the Range of 90% to less than 100% during the Year 2021 - 22	19
XII	Thermal Power Stations with Fly Ash Utilization in the Range of 70% to less than 90% during the Year 2021 - 22	21
XIII	Thermal Power Stations with Fly Ash Utilization in the range 50% to less than 70% during the Year 2021 - 22	24
XIV	Thermal Power Stations with Ash Utilization Level of below 50% during the Year 2021 - 22	26
XV	Thermal Power Stations with no Ash generation during the year 2021 - 22	27
XVI	Fly Ash Utilization status as per notification of 3 <sup>rd</sup> November 2009 during the year 2021 - 22 (Target Achieved)	29
XVII	Fly Ash Utilization status as per notification of 3 <sup>rd</sup> November 2009 during the year 2021 - 22 (Target Not Achieved)	36
XVIII	Modes of fly ash utilization during Year 2021 - 22	42
XIX	Progressive Fly Ash generation & utilization during the period from 1996-97 to 2021 - 22	44



# LIST OF FIGURES

Figure No.	TITLE OF FIGURE	PAGE No.
1	Mode of fly ash utilization during 2021 - 22	43
2	Progressive generation & utilization of fly ash during the Period from 1996-97 to 2021 - 22	45
3	Progressive utilization of fly ash in Cement manufacturing and concrete during the Period from 1998-99 to 2021 - 22	47
4	Progressive utilization of fly ash in the reclamation of Low Lying Areas during the period from 1998-99 to 2021 - 22	48
5	Progressive utilization of fly ash in construction of roads/embankments/ash dyke raising during the period from 1998-99 to 2021 - 22	49
6	Progressive utilization of fly ash in Mine filling during the period from 1998-99 to 2021 - 22	50
7	Progressive utilization of fly ash in the manufacture of fly ash based bricks / blocks / tiles during the period from 1998-99 to 2021 - 22	51
8	Progressive utilization of fly ash in agriculture during the period from 1998-99 to 2021 - 22	52

# REPORT

# **CENTRAL ELECTRICITY AUTHORITY**

## **CIVIL DESIGN DIVISION**

### **FLY ASH GENERATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS AND ITS UTILIZATION IN THE COUNTRY (FOR THE YEAR 2021 - 22)**

#### **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 30-60 % in comparison to imported coals which have a low ash content of the order of 2-20 %. A large quantity of ash is, thus being generated at Coal / Lignite based Thermal Power Stations in the country, which not only requires a 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 the fly ash generation and its utilization at coal / lignite based thermal power stations in the country since 1996. Data on fly ash generation and utilization including modes of utilization are obtained from thermal power stations on Half-Yearly as well as on Yearly basis. The data thus obtained is analyzed and a report, bringing out the status of fly ash generation and its utilization in the country, is prepared. It is uploaded on the web site of CEA for bringing out the information in the public domain so that users of fly ash can have access to the information on the availability of fly ash at different thermal power stations in the country, in order to facilitate and promote the utilization of fly ash.

In order to reduce the requirement of land, for the disposal of fly ash in the ash ponds, and to address the problem of pollution caused by fly ash, the Ministry of Environment, Forests (MoEF) has issued various Notifications on fly ash utilization. The First Notification was issued on 14<sup>th</sup> September 1999 which was subsequently amended in the years 2003, 2009 and 2016 vide Notifications dated 27<sup>th</sup> August 2003, 3<sup>rd</sup> November 2009 and 25<sup>th</sup> January 2016 respectively. The amendment Notification of year 2009 prescribes the targets of Fly Ash utilization in a phased manner for all Coal / Lignite based Thermal Power Stations in the country so as to achieve 100% utilization of fly ash. The latest Notification on utilization of Fly Ash has been issued by MoEF & CC on 31.12.2021 which shall be applicable for the financial Year 2022-23 onwards.

The Thermal Power Stations in operation, before the date of the Notification (i.e. 3<sup>rd</sup> November 2009) are to achieve the target of fly ash utilization in successive 5 years; 50% in the first year; 60% in the second year; 75% in the third year ; 90% in the fourth year and 100% in the fifth year from the date of notification. The new Thermal Power Stations coming into operation after the MoEF's notification (i.e. 3<sup>rd</sup> November 2009) are to achieve the target of fly ash utilization as 50% in the first year, 70% in the second year, 90% in the third year and 100% in the fourth year from their date of commissioning. Ministry of Environment, Forest and Climate Change (MoEF&CC) has issued an amendment to the Notification on 25<sup>th</sup> January 2016 in order to widen the

scope of fly ash utilization, besides engraining upon Power Utilities to bear the cost of the transportation.

The report on “Fly Ash Generation and its Utilization at Coal / Lignite based Thermal Power Stations” provides the information and the status of fly ash utilization in the country. It also facilitates to ascertain the level of fly ash utilization achieved by various power stations in relation to targets prescribed in MoEF’s amended notification of 3<sup>rd</sup> November, 2009 and to take corrective measures in the cases of Thermal Power Stations lagging behind in achieving the prescribed targets of fly ash utilization.

## **2.0 ASH GENERATION & UTILIZATION DURING THE YEAR 2021-22**

### **2.1 A Brief Summary**

Fly ash generation & utilization data for the Year 2021-22 (April 2021 to March 2022) has been received from **200 (Two Hundred)** coal / lignite based thermal power stations of various power utilities in the country. Data received has been analysed to derive conclusions on present status of fly 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**  
**THE YEAR 2021-22**

Description		Year 2021 - 22
No. of Thermal Power Stations from which data have been received	:	200
Installed capacity (Mega Watts)	:	213620.50
Coal Consumed (Million tons)	:	759.02
Fly Ash Generation (Million tons)	:	270.82
Fly Ash Utilization (Million tons)	:	259.86
Percentage Utilization (%)	:	95.95
Percentage Average Ash Content (%)	:	35.68

Power Station wise fly ash generation & its utilization status including the modes of utilization for the year 2021-22 for all the 200 thermal power stations is given in the statement at Annexure-I and State wise fly ash generation & its utilization status is given in Annexure-II.

## 2.2 Data Provided by Thermal Power Units Commissioned during the Year 2021-22:

During the Year 2021-22, Nine (9) Thermal power plants with a total installed capacity of 5260 MW as given in Table-II below were commissioned:

**TABLE-II**  
**DATA PROVIDED BY THERMAL POWER UNITS COMMISSIONED DURING**  
**THE YEAR 2020-21**

Sl.No	Name of Thermal Power Station	Name of Power Utility	Unit No.	State	Capacity (MW)	Date of Commission
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2021 - 22						
1	NABINAGAR- BRBCL	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	4	Bihar	250.00	01.12.2021
2	TANDA	NTPC LTD.	6	Uttar Pradesh	660.00	01.07.2021
3	BARH SUPER TPS	NTPC LTD.	1	Bihar	660.00	12.11.2021
4	NABINAGAR-NPGC	NPGC (NTPC-JV)	2	Bihar	660.00	23.07.2021
5	DARLIPALI SUPER TPS	NTPC LTD.	2	Odisha	800.00	01.09.2021
6	BARAUNI	NTPC LTD.	9	Bihar	250.00	01.11.2021
7	KHARGONE SUPER THERMAL POWER STATION	NTPC LTD.	2	Madhya Pradesh	660.00	04.04.2021
8	SURATGARH	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	8	Rajasthan	660.00	06.10.2021
9	HARDUAGANJ	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	10	Uttar Pradesh	660.00	09.02.2022
Total for 2021 - 22					5260.00	

## 2.3 Retirement of Thermal Power Units during the Year 2021-22:

During the Year 2021-22, the following units with installed capacity as given in Table-III below have been decommissioned:

**TABLE-III**  
**THERMAL POWER UNITS RETIRED / DECOMMISSIONED DURING**  
**THE YEAR 2021-22**

Sl.No	Name of Thermal Power Station	Name of Power Utility	State	Unit No.	Capacity (MW)	Sub Total	Date of De Commissioning
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2021 - 22							
1	BOKARO	Damodar Valley Corporation	Jharkhand	3	210	210	01.04.2021
2	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC-JV)	Bihar	1 & 2	110 & 110	220	31.01.2022
3	KORADI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	7	210	210	02.09.2021
4	KOLAGHAT	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1 & 2	210 & 210	420	28.03.2022
5	BANDEL	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1	60	60	28.03.2022
Total for 2021 - 22						1120	

**2.4 Power Utility Wise Status of Fly Ash Generation & its Utilization during the Year 2021-22:**

The status of fly ash generation & utilization for the year 2021-22 for various power utilities in the country has been assessed based on the data received from Thermal Power Stations and the same is given in **Table – IV**:

**TABLE-IV**  
**POWER UTILITY WISE FLY ASH GENERATION AND UTILIZATION FOR**  
**THE YEAR 2021-22**

Sl. No.	Name of Power Utility	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	AARTI STEELS LIMITED	1	80.00	0.2612	0.2612	100.00
2	ANDHRA PRADESH POWER GENERATION CORPORATION (APGENCO)	2	3410.00	6.3033	5.7316	90.93
3	Andhra Pradesh Power Development Company Limited	1	1600.00	1.2329	0.8031	65.14
4	ACB (INDIA) Ltd.	5	490.00	1.5135	1.5133	99.99
5	ARAVALI POWER CORPORATION PVT LTD (NTPC-JV)	1	1500.00	1.6420	2.6160	159.32
6	ADANI POWER (MUNDRA) LIMITED	1	4620.00	0.3448	0.3566	103.41
7	ADANI POWER MAHARASHTRA LTD.	1	3300.00	4.5451	3.5557	78.23
8	ADANI POWER RAJASTHAN LTD.	1	1320.00	1.5625	1.5648	100.15
9	Abhijeet MADC Nagpur Energy Pvt. Ltd.	1	246.00	0.0000	0.0370	-
10	ADANI ELECTRICITY MUMBAI LIMITED	1	500.00	0.6346	0.6710	105.74
11	ADHUNIK POWER & NATURAL RESOURCES LTD.	1	540.00	1.1199	0.9762	87.17
12	Bajaj Energy Limited	5	450.00	0.3005	0.3005	100.00
13	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	1	1000.00	1.6124	0.9127	56.60
14	BALCO	2	1740.00	3.1346	4.0345	128.71
15	BHADRESHWAR VIDYUT PRIVATE LIMITED	1	300.00	0.0215	0.0215	100.41
16	C.E.S.C. Ltd. (West Bengal)	3	1125.00	1.1135	1.1135	100.00
17	Chattisgarh State Power Generation Company Ltd. (C.S.P.G.C.L.)	3	2840.00	5.5878	2.4636	44.09
18	COASTAL ENERGEN PVT. LTD	1	1200.00	0.0674	0.0704	104.47
19	C.G.P.L (Gujarat)	1	4150.00	0.0360	0.0420	116.67
20	CHEMPLAST LIMITED	1	48.50	0.0192	0.0192	100.26
21	DB POWER LIMITED	1	1200.00	2.9851	3.4076	114.15
22	Damodar Valley Corporation (D.V.C.)	7	6750.00	12.4280	9.5306	76.69
23	Dhariwal Infrastructure Ltd. (Maharashtra)	1	600.00	0.9511	0.9511	100.00
24	MAHAN ENERGEN LTD.	1	1200.00	0.8359	0.2128	25.46

25	ESSAR POWER GUJARAT LTD	1	1200.00	0.0000	0.0000	#DIV/0!
26	Gujarat Industries Power Corporation Ltd. (G.I.P.C.L.)	1	500.00	0.4719	0.4719	100.00
27	Gujarat Mineral Development Corporation Ltd. (G.M.D.C.L.)	1	250.00	0.1158	0.2246	193.91
28	G.S.E.C.L. (Gujarat)	6	5160.00	5.1738	6.1721	119.30
29	GMR Warora Energy LTD. (Maharashtra)	1	600.00	0.8208	1.0294	125.41
30	GMR Kamalanga Energy LTD. (Odisha)	1	1050.00	2.3240	3.1018	133.47
31	Haryana Power Generation Cor. Ltd. (H.P.G.C.L.)	3	2510.00	2.2545	10.6771	473.60
32	HALDIA ENERGY LIMITED (W.B.)	1	600.00	1.0940	1.0940	100.00
33	HINDUJA NATIONAL POWER CORPORATION LIMITED	1	1040.00	0.0845	0.4047	478.97
34	INDIA POWER CORPORATION LTD.	1	12.00	0.0166	0.0166	100.00
35	INDIAN METALS & FERRO ALLOYS LTD. (Odisha)	1	200.00	0.5201	0.5201	100.00
36	IL & FS TAMIL NADU POWER COMPANY LIMITED	1	1200.00	0.0766	0.0766	100.00
37	IDEAL ENERGY PROJECTS LIMITED	1	270.00	0.0000	0.0000	-
38	JK CEMENT WORKS MUDDAPUR	1	50.00	0.0141	0.0141	100.00
39	JHAJJAR POWER LIMITED	1	1320.00	1.8045	1.8045	100.00
40	JINDAL POWER LIMITED	2	3400.00	5.4037	4.7499	87.90
41	JAIPRAKSH POWER VENTURES LIMITED	2	1820.00	2.2667	1.9754	87.15
42	JSW Energy Ltd.	2	2060.00	0.6145	0.6145	100.01
43	JINDAL INDIA THERMAL POWER LIMITED	1	1200.00	2.4016	1.2906	53.74
44	JINDAL STEEL AND POWER LIMITED	3	1685.00	2.5680	1.7397	67.74
45	JSW ENERGY (BARMER) LIMITED	1	1080.00	0.8972	0.8468	94.38
46	JSW STEEL LIMITED	1	90.00	0.0094	0.0094	100.30
47	JHABUA POWER LIMITED	1	600.00	1.0217	0.5690	55.69
48	Karnataka Power Corporation Ltd.(K.P.C.L.)	2	3420.00	3.7161	3.2506	87.47
49	Kanti Bijlee Utpadan Nigam Limited	1	610.00	0.7890	1.3230	167.68
50	KSK MAHANADI POWER COMPANY LIMITED	1	1800.00	2.0586	2.2392	108.77
51	LANCO AMARKANTAK POWER LIMITED	1	600.00	1.1070	0.8297	74.95



52	LALITPUR POWER GENERATION COMPANY LIMITED	1	1980.00	2.0943	1.8855	90.03
53	LANCO ANPARA POWER LIMITED	1	1200.00	1.7101	0.2191	12.81
54	MAITHON POWER LIMITED	1	1050.00	1.8518	1.6577	89.52
55	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	4	5400.00	5.8844	3.3801	57.44
56	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	7	9540.00	14.2085	32.7349	230.39
57	MARUTI CLEAN COAL AND POWER LIMITED	1	300.00	0.6756	0.6756	100.00
58	SAI WARDHA POWER GENERATION PVT LTD.	1	540.00	0.4221	0.4221	100.00
59	MEENAKSHI ENERGY LIMITED	1	300.00	0.0172	0.0016	9.51
60	MB POWER (MADHYA PRADESH) LIMITED	1	1200.00	2.1848	2.1894	100.21
61	MEJA URJA NIGAM PRIVATE LIMITED (NTPC-JV)	1	1320.00	1.8226	1.3207	72.47
62	NPGC (NTPC-JV)	1	1320.00	1.6838	0.8596	51.06
63	NLC INDIA LIMITED	5	3640.00	1.2904	2.2134	171.53
64	NLC TAMIL NADU POWER LIMITED	1	1000.00	1.1385	1.1385	100.00
65	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	4	814.00	2.0264	1.4130	69.73
66	NTECL (Tamil Nadu)	1	1500.00	2.4466	1.9107	78.10
67	N.T.P.C. LTD.	23	48010.00	71.0290	57.1382	80.44
68	NABHA POWER LIMITED	1	1400.00	1.9556	1.9570	100.07
69	NATIONAL ALUMINIUM COMPANY LIMITED	1	1200.00	2.6936	2.3066	85.63
70	ODISHA POWER GENERATION CORPORATION LIMITED	1	1740.00	3.5855	0.9812	27.37
71	OPG POWER GENERATION PRIVATE LIMITED	1	414.00	0.1030	0.1030	100.00
72	Punjab State Power Corporation Ltd. (P.S.P.C.L).	4	2760.00	1.3577	2.3617	173.94
73	PRAYAGRAJ POWER GENERATION COMPANY LTD.	1	1980.00	2.4194	2.1075	87.11
74	R.K.M. POWERGEN PVT. LTD	1	1440.00	2.4624	2.4602	99.91
75	Rajasthan Rajya Vidyut Utpadan Nigam Ltd. (R.R.V.U.N.L.)	6	6510.00	6.0498	6.7646	111.81

76	ROSA POWER SUPPLY COMPANY LIMITED	1	1200.00	1.3284	1.0491	78.98
77	RATTANINDIA POWER LTD.	1	1350.00	2.3922	1.9421	81.19
78	RAICHUR POWER CORPORATION LIMITED	1	1600.00	1.3131	1.1415	86.93
79	RASHTRIYA ISPAT NIGAM LIMITED	1	315.00	0.5111	0.4667	91.31
80	RAIGARH ENERGY GENERATION LIMITED	1	600.00	1.0950	0.4100	37.44
81	RAIPUR ENERGEN LIMITED	1	1370.00	2.0409	2.0013	98.06
82	REILIANCE POWER LIMITED	1	3960.00	5.3475	2.7994	52.35
83	SAI LILAGAR POWER GENERATION LIMITED	1	86.00	0.0041	0.0041	-
84	SEMBCORP ENERGY INDIA LTD.	1	1320.00	1.6994	1.6999	100.03
85	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	1	25.00	0.0000	0.0000	-
86	SKS POWER GENERATION (CHHATTISGARH) LIMITED	1	600.00	0.5571	0.5317	95.43
87	THE DURGAPUR PROJECTS LIMITED	1	550.00	0.7238	0.4812	66.48
88	THE SINGARENI COLLIERIES COMPANY LIMITED	1	1200.00	1.9320	2.2660	117.29
89	TAQA NEYVELLY POWER CO.PVT. LTD.	1	250.00	0.0761	0.0639	83.98
90	THE TATA POWER COMPANY LIMITED	2	1297.50	1.0590	1.0688	100.92
91	TORRENT POWER LTD.	1	362.00	0.3739	0.3739	100.00
92	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	5	4320.00	6.1932	5.8409	94.31
93	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	6	2962.50	4.4217	3.1596	71.46
94	TRN ENERGY PRIVATE LIMITED	1	600.00	0.2273	0.1139	50.12
95	TENUGHAT VIDHYUT NIGAM LIMITED	1	420.00	0.3973	0.4478	112.70
96	TALWANDI SABO POWER LTD.	1	1980.00	2.4013	2.1702	90.38
97	Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.(U.P.R.V.U.N.L.)	4	5820.00	7.0255	2.1171	30.13
98	UDUPI POWER CORPORATION LIMITED	1	1200.00	0.0572	0.0587	102.62
99	VIDARBHA INDUSTRIES POWER LTD.	1	600.00	0.0000	0.0000	-

100	VS LIGNITE POWER PRIVATE LIMITED	1	135.00	0.2265	0.2265	100.00
101	VEDANTA LIMITED	2	3615.00	4.7471	9.4964	200.05
102	West Bangal Power Development Corporation Limited (W.B.P.D.C.L)	5	4745.00	7.5790	5.4168	71.47
103	ZUARI CEMENT LIMITED	1	43.00	0.1017	0.1017	100.00
	GRAND TOTAL	200	213620.50	270.8216	259.8628	95.95

It may be seen from the **Table-IV** above that: the data of fly ash generation and utilization for the year 2021-22 was received from **103** Power Utilities out of which 50 Power Utilities have achieved **fly ash utilization level of 100% or more** and 10 Power Utilities have achieved fly ash utilization level in the range of 90% to less than 100

## 2.5 State wise Status of Fly Ash Generation & its Utilization during the Year 2021-22:

The state-wise status of fly ash generation & utilization in the country based on the data received from Thermal Power Stations / Power Utilities has also been assessed and the same is given in **Table-V** below:

**TABLE-V**  
**STATE WISE FLY ASH GENERATION AND ITS UTILIZATION DURING**  
**THE YEAR 2021-22**

Sl. No.	Name of State	Nos. 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	8	9985.00	13.4400	13.1251	97.66
2	ASSAM	1	750.00	0.7573	0.4393	58.01
3	BIHAR	6	7860.00	11.0736	10.3099	93.10
4	CHHATISGARH	30	25720.00	44.9589	35.2808	78.47
5	GUJARAT	13	16542.00	6.5377	7.6626	117.21
6	HARYANA	5	5330.00	5.7010	15.0976	264.82
7	JHARKHAND	7	4557.50	8.1525	7.6726	94.11

Sl. No.	Name of State	Nos. of TPS	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	Percentage Utilization (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
8	KARNATAKA	7	9530.00	6.6901	5.4373	81.27
9	MADHYA PRADESH	13	21860.00	28.8311	16.9291	58.72
10	MAHARASHTRA	20	23136.00	28.9307	46.4023	160.39
11	ODISHA	12	14615.00	28.1828	24.3030	86.23
12	PUNJAB	6	6140.00	5.7147	6.4889	113.55
13	RAJASTHAN	10	9295.00	8.9270	9.5937	107.47
14	TAMILNADU	17	13412.50	11.2293	11.2550	100.23
15	TELANGANA	9	6805.50	10.3937	11.0774	106.58
16	UTTAR PRADESH	19	24080.00	29.0602	20.6000	70.89
17	WEST BENGAL	17	14002.00	22.2412	18.1884	81.78
	GRAND TOTAL	200	213620.50	270.8216	259.8628	95.95

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

- (i) 10 states namely Andhra Pradesh, Bihar, Chhattisgarh, Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal have generated more than 10 Million-tonnes of fly ash each with Chhattisgarh highest 44.9589 Million Tonnes during the Year 2021-22
- (ii) During the Year 2021-22, states of, Gujarat, Haryana, Maharashtra, Punjab, Rajasthan, Tamil Nadu and Telangana have achieved fly ash utilization level of more than 100 %. Similarly, Andhra Pradesh, Bihar and Jharkhand have achieved the fly ash utilization level of more than 90 % but less than 100 %.
- (iii) All States have utilized more than 50% of fly ash.

### **3.0 TARGETS FOR FLY ASH UTILIZATION AS PER MoEF'S NOTIFICATION OF 3rd NOVEMBER, 2009:**

The notification set the target for the thermal power stations which were in operation before the date of notification i.e. 3.11.2009 as well as the new thermal power

stations to be commissioned after the notification i.e. 3.11.2009. The same has been brought out below:

### 3.1 Thermal Power Station in Operation as on 3rd November, 2009:

All Coal / Lignite based Thermal Power Stations / Expansion units in operation before the date of MoEF's notification i.e. 03.11.2009 were to achieve the target of fly ash utilization as per the **Table-VI** given below:

**TABLE-VI**  
**TARGETS FOR FLY ASH UTILIZATION FOR THERMAL POWER STATIONS IN OPERATION BEFORE 3rd NOVEMBER 2009**

Sl. No.	Target of Fly Ash Utilization (In Percentage)	Target Date
(1)	(2)	(3)
1	At least 50% of Fly Ash generation	One year from the date of issue of notification
2	At least 60% of Fly Ash generation	Two years from the date of issue of notification
3	At least 75% of Fly Ash generation	Three years from the date of issue of notification
4	At least 90% of Fly Ash generation	Four years from the date of issue of notification
5	100% of Fly Ash generation	Five years from the date of issue of notification

The unutilized fly ash, if any, in relation to the target during a year would be required to be utilized within next two years in addition to the targets stipulated for those years and the balance unutilized fly ash accumulated during the first five years (the difference between the generation and the utilization target) would be required to be utilized progressively over the next five years in addition to 100% utilization of current generation of fly ash.

### 3.2 Thermal Power Station Commissioned after 3rd November, 2009:

New Coal / Lignite based Thermal Power Stations / Expansion Units commissioned after the issue of MoEF's notification of 3rd November 2009 are to achieve the target of fly ash utilization as per **Table-VII** given below:

**TABLE-VII**  
**TARGETS FOR FLY ASH UTILIZATION FOR THERMAL POWER STATION**  
**COMMISSIONED AFTER 3rd NOVEMBER, 2009**

SI No.	Fly Ash Utilization Level	Target Date
(1)	(2)	(3)
1	At least 50% of fly ash generation	One year from the date of Commissioning
2	At least 70% of fly ash generation	Two years from the date of Commissioning
3	At least 90% of fly ash generation	Three years from the date of Commissioning
4	At least 100% of fly ash generation	Four years from the date of commissioning

The unutilized fly ash, if any, in relation to the target during a year would be required to be utilized within the next two years in addition to the targets stipulated for these years and the balance unutilized fly ash accumulated during the first four years (the difference between the generation and utilization target) would be required to be utilized progressively over next five years in addition to 100% utilization of current generation of fly ash.

**4.0 TARGET OF FLY ASH UTILIZATION DURING 2021-22 AS PER MoEF's NOTIFICATION OF 3rd NOVEMBER 2009:**

Fly ash generation and utilization data received from Thermal Power Stations/Power Utilities in the country for the year 2021-22 has been broadly analysed to ascertain the power stations which have achieved the targets of fly ash utilization as prescribed in MoEF's notification of 3rd November 2009.

During the Year 2021-22, all those thermal power stations which were in operation on the date of issue of MoEF's notification (i.e. 3rd November 2009) should have achieved the target of fly ash utilization of 100% within five years from the date of notification i.e. by 3rd November 2009. All those thermal power stations which have come in operation after the date of issue of MoEF's notification (i.e. 3rd November 2009) should have achieved the target of fly ash utilization in four years from the date of Commissioning as specified in **Table-VII** above.

#### 4.1 Status of Utilization of Fly Ash during the Year 2021-22:

Based on the target indicated under Para 4.0 above, the status of achievement of fly ash utilization for the Year 2021-22 has been assessed and the same is given in **Table-VIII** below.

**TABLE-VIII**  
**STATUS OF UTILIZATION OF FLY ASH AS PER MOEF'S NOTIFICATION DATED**  
**3<sup>rd</sup> NOVEMBER 2009 FOR THE YEAR 2021-22**

Sl. No.	Description	No. of TPS
(1)	(2)	(3)
1	No. of TPS which have achieved the Target of fly ash utilization as per MoEF's Notification of 3 <sup>rd</sup> November, 2009 (Refer <b>Table XVI</b> )	93
2	No. of TPS which have not been able to achieve the target of fly ash utilization as per MoEF's Notification of 3 <sup>rd</sup> November, 2009 (Refer <b>Table- XVII</b> )	98
3	No. of TPS which have not generated any significant fly ash or any fly ash (Refer <b>Table- XV</b> )	9
	<b>Total</b>	<b>200</b>

It may be seen from **Table-VIII** above that during the Year 2021-22, out of 200 (Two Hundred) thermal power stations for which data was received, 97 (Ninety and seven) power stations have achieved the targets of fly ash utilization as stipulated in MoEF's Notification of 3<sup>rd</sup> November 2009.

#### 4.2 Range of Fly Ash Utilization during the Year 2021-22

Based on the fly ash utilization data received from Thermal Power Stations / Power Utilities, the Thermal Power Stations have been grouped into 6 (Six) categories as noted below depending upon the range of utilization of fly ash by the stations:

**TABLE-IX**  
**RANGE OF PERCENTAGE FLY ASH UTILIZATION DURING**  
**THE YEAR 2021-22**

Sl. No.	Level of Fly Ash utilization	No. of Power Stations
(1)	(2)	(3)
1	100 % and more than 100 % (Refer <b>Table- X</b> )	92
2	90 % to less than 100 % (Refer <b>Table- XI</b> )	19
3	70 % to less than 90 % (Refer <b>Table- XII</b> )	34
4	50 % to less than 70 % (Refer <b>Table- XIII</b> )	28
5	Less than 50 % (Refer <b>Table- XIV</b> )	18
6	No. of TPS which have not generated any significant fly ash or any fly ash (Refer <b>Table- XV</b> )	9
	<b>Total</b>	<b>200</b>

**4.3 Thermal Power Stations that have achieved Fly Ash utilization level of 100% or more during the Year 2021-22:**

The Thermal Power Stations with fly ash utilization in the range of 100% or more during the year 2021-22 is given in **Table-X** below:

**TABLE-X**  
**THERMAL POWER STATIONS WITH FLY ASH UTILIZATION LEVEL OF 100% OR MORE**  
**DURING THE YEAR 2021 – 22**

Sl. No.	Name of TPS	Power Utility	Installed Capacity (MW)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	Percentage Utilization (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	AARTI STEELS LIMITED	AARTI STEELS LIMITED	80.00	0.2612	0.2612	100.00
2	Dr. N.T.R TPS	APGENCO	1760.00	4.1629	4.1664	100.08



Sl.	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
3	CHAKABURA TPP	ACB (INDIA) Ltd.	30.00	0.0881	0.0881	100.00
4	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	30.00	0.0895	0.0895	100.00
5	RATIJA TPS	ACB (INDIA) Ltd.	100.00	0.4558	0.4558	100.00
6	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	4620.00	0.3448	0.3566	103.41
7	KAWAI	ADANI POWER RAJASTHAN LTD.	1320.00	1.5625	1.5648	100.15
8	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	500.00	0.6346	0.6710	105.74
9	BARKHERA	Bajaj Energy Limited	90.00	0.0566	0.0567	100.20
10	KUNDARKI	Bajaj Energy Limited	90.00	0.0741	0.0742	100.11
11	BALCO CPP	BALCO	540.00	0.9948	1.2077	121.40
12	BALCO TPP	BALCO	1200.00	2.1398	2.8268	132.11
13	BHADRESHWAR VIDYUT PRIVATE LTD TPS	BHADRESHWAR VIDYUT PRIVATE LIMITED	300.00	0.0215	0.0215	100.41
14	Budge Budge Generating Station	CESC Ltd.	750.00	1.0818	1.0818	100.00
15	Southern Generating Station	CESC Ltd.	135.00	0.0317	0.0317	100.00
16	MUTIARA	COASTAL ENERGEN PVT. LTD	1200.00	0.0674	0.0704	104.47
17	MUNDRA UMPP	COASTAL ENERGEN PVT. LTD	4150.00	0.0360	0.0420	116.67
18	CHEMPLAST LIMITED TPS	CHEMPLAST LIMITED	48.50	0.0192	0.0192	100.26
19	DB POWER	DB POWER LIMITED	1200.00	2.9851	3.4076	114.15
20	CHANDRAPURA	Damodar Valley Corporation	500.00	1.0576	1.0702	101.19
21	DHARIWAL INFRASTRUCTURE Ltd.	DHARIWAL INFRASTRUCTURE LIMITED	600.00	0.9511	0.9511	100.00
22	SURAT LIGNITE	Gujarat Industries Power Company Limited	500.00	0.4719	0.4719	100.00
23	AKRIMOTA	Gujarat Mineral Development Corporation Limited	250.00	0.1158	0.2246	193.91
24	GANDHINAGAR	Gujarat State Electricity Corporation Limited	630.00	0.7560	1.7979	237.82
25	KUTCH LIGNITE	Gujarat State Electricity Corporation Limited	150.00	0.1818	0.3085	169.69

Sl.	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
26	SIKKA	Gujarat State Electricity Corporation Limited	500.00	0.0431	0.4209	976.57
27	BHAVNAGAR LIGNITE	Gujarat State Electricity Corporation Limited	500.00	0.1880	0.1935	102.93
28	GMR WARORA ENERGY LTD.	GMR WARORA ENERGY LTD.	600.00	0.8208	1.0294	125.41
29	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY LTD.	1050.00	2.3240	3.1018	133.47
30	RAJIV GANDHI TPP, Hissar	Haryana Power Generation Corporation Limited	1200.00	0.7219	1.1491	159.18
31	Deen Bandhu Chhotu Ram TPS, YAMUNANAGAR	Haryana Power Generation Corporation Limited	600.00	0.7770	1.2766	164.29
32	PANIPAT	Haryana Power Generation Corporation Limited	710.00	0.7555	8.2513	1092.10
33	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	600.00	1.0940	1.0940	100.00
34	HINDUJA NATIONAL POWER CORPORATION LIMITED	HINDUJA NATIONAL POWER CORPORATION LIMITED	1040.00	0.0845	0.4047	478.97
35	DISHERGARH POWER STATION	INDIA POWER CORPORATION LTD.	12.00	0.0166	0.0166	100.00
36	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS LTD.	200.00	0.5201	0.5201	100.00
37	IL & FS TAMIL NADU POWER COMPANY LTD.	IL & FS TAMIL NADU POWER COMPANY LIMITED	1200.00	0.0766	0.0766	100.00
38	JK CAPTIVE POWER PLANT	JK CEMENT WORKS MUDDAPUR	50.00	0.0141	0.0141	100.00
39	MAHATMA GANDHI TPP	JHAJJAR POWER LIMITED	1320.00	1.8045	1.8045	100.00
40	RATNAGIRI	JSW ENERGY LIMITED	1200.00	0.3599	0.3600	100.02
41	JSW STEEL LIMITED CPP-II	JSW STEEL LIMITED	90.00	0.0094	0.0094	100.30
42	JINDAL STEEL AND POWER LIMITED (CPP)	JINDAL STEEL AND POWER LIMITED	299.00	0.3299	0.3299	100.00
43	KMPCL - NARIYARA	KSK MAHANADI POWER COMPANY LIMITED	1800.00	2.0586	2.2392	108.77
44	BHUSAWAL	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	1210.00	1.9071	1.9251	100.94
45	NASHIK	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	630.00	0.6670	5.3617	803.91
46	PARLI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	750.00	0.7856	19.0800	2428.62

Sl.	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
47	PARAS	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	500.00	0.8072	1.2009	148.78
48	MCCPL BANDHAKHAR	MARUTI CLEAN COAL AND POWER LIMITED	300.00	0.6756	0.6756	100.00
49	SAI WARDHA POWER Ltd., WARORA	SAI WARDHA POWER GENERATION PVT LTD.	540.00	0.4221	0.4221	100.00
50	ANUPPUR TPS	MB POWER (MADHYA PRADESH) LIMITED	1200.00	2.1848	2.1894	100.21
51	NEYVELI -I EXPN	NLC INDIA LIMITED	420.00	0.0195	0.0195	100.00
52	NEYVELI - II	NLC INDIA LIMITED	1470.00	0.6339	1.5598	246.09
53	NEYVELI NEW THERMAL POWER STATION	NLC INDIA LIMITED	1000.00	0.3127	0.3127	100.00
54	BARSINGSAR LIGNITE	NLC INDIA LIMITED	250.00	0.1910	0.1910	100.00
55	NLC TAMILNADU POWER Ltd	NLC TAMIL NADU POWER LIMITED	1000.00	1.1385	1.1385	100.00
56	RAMAGUNDAM SUPER	NTPC LTD.	2600.00	3.9383	5.5501	140.92
57	FARAKKA SUPER	NTPC LTD.	2100.00	2.7881	3.8222	137.09
58	DADRI	NTPC LTD.	1820.00	1.2853	1.2869	100.13
59	FEROZE GANDHI UNCHAHAR	NTPC LTD.	1550.00	2.0848	3.3188	159.19
60	SIMHADRI SUPER	NTPC LTD.	2000.00	3.5916	4.0174	111.86
61	TANDA	NTPC LTD.	1760.00	2.2564	3.0558	135.43
62	MOUDA SUPER TPS	NTPC LTD.	2320.00	3.4059	3.7864	111.17
63	BARH SUPER TPS	NTPC LTD.	1980.00	2.1564	3.4101	158.14
64	DURGAPUR CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	120.00	0.2774	0.2906	104.75
65	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC-JV)	610.00	0.7890	1.3230	167.68
66	INDIRA GANDHI	ARAVALI POWER CORPORATION PVT LTD (NTPC-JV)	1500.00	1.6420	2.6160	159.32
67	RAJPURA TPS	NABHA POWER LIMITED	1400.00	1.9556	1.9570	100.07
68	OPG POWER GENERATION PRIVATE LIMITED	OPG POWER GENERATION PRIVATE LIMITED	414.00	0.1030	0.1030	100.00
69	GURU GOBIND SINGH TPP, ROPAR	PUNJAB STATE POWER	840.00	0.4240	1.3636	321.62

Sl.	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		CORPORATION LIMITED				
70	SURATGARH	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1500.00	0.9786	1.8438	188.42
71	KALISINDH SUPER TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1200.00	1.4069	1.4298	101.62
72	KOTA SUPER THERMAL POWER STATION	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1240.00	1.7071	2.0508	120.13
73	SAI LILAGAR POWER GENERATION LTD.	SAI LILAGAR POWER GENERATION LIMITED	86.00	0.0041	0.0041	100.00
74	SEMBCORP ENERGY INDIA LTD.	SEMBCORP ENERGY INDIA LTD.	1320.00	1.6994	1.6999	100.03
75	SINGARENI TPP	THE SINGARENI COLLIERIES COMPANY LIMITED	1200.00	1.9320	2.2660	117.29
76	JOJOBERA	THE TATA POWER COMPANY LIMITED	547.50	1.0042	1.0140	100.97
77	TROMBAY	THE TATA POWER COMPANY LIMITED	750.00	0.0548	0.0548	100.00
78	SABARMATI TPS	TORRENT POWER LTD.	362.00	0.3739	0.3739	100.00
79	METTUR-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	840.00	1.4106	1.4286	101.28
80	METTUR-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	600.00	0.7632	0.7632	100.00
81	NORTH CHENNAI-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	630.00	1.0188	1.4507	142.40
82	NORTH CHENNAI-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	1200.00	1.4890	1.5591	104.71
83	RAMAGUNDAM 'B'	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	62.50	0.0881	0.2298	260.94
84	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	420.00	0.3973	0.4478	112.70
85	HARDUAGANJ	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	1270.00	0.5519	1.1912	215.84
86	UDUPI	UDUPI POWER CORPORATION LIMITED	1200.00	0.0572	0.0587	102.62

Sl.	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
87	VS LIGNITE POWER PRIVATE LTD	VS LIGNITE POWER PRIVATE LIMITED	135.00	0.2265	0.2265	100.00
88	VEDANTA LTD TPP	VEDANTA LIMITED	2400.00	4.4006	5.2762	119.90
89	VEDANTA LTD CPP	VEDANTA LIMITED	1215.00	0.3464	4.2202	1218.21
90	KOLAGHAT	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1260.00	1.4819	1.6494	111.30
91	BANDEL	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	335.00	0.5836	0.6317	108.24
92	SITAPURAM TPS	ZUARI CEMENT LIMITED	43.00	0.1017	0.1017	100.00

It may be seen from the **Table-X** above that during the Year 2021-22, 92 Thermal Power Stations have achieved a fly ash utilization of 100% or more. More than 100% fly ash utilization means utilization of ash generated during the current year and utilization of un-utilized accumulated ash before the current year.

#### **4.4 Thermal Power Stations with Fly Ash Utilization in the Range of 90 % to less than 100 % during the Year 2021-22:**

The Thermal Power Stations with fly ash utilization in the range of 90% to less than 100% during the year 2021-22 are given in **Table-XI** below:

**TABLE-XI**

#### **THERMAL POWER STATIONS WITH FLY ASH UTILIZATION IN THE RANGE OF 90% TO LESS THAN 100% DURING THE YEAR 2021 – 22**

Sl	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(MT)	(MT)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	KASAIPALI	ACB (INDIA) Ltd.	270.00	0.8801	0.8799	99.98

Sl	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(MW)	(MT)	(MT)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2	KHAMBHAR KHERA	Bajaj Energy Limited	90.00	0.0517	0.0517	99.93
3	MAQSOODAPUR	Bajaj Energy Limited	90.00	0.0545	0.0545	99.90
4	UTRAULA	Bajaj Energy Limited	90.00	0.0635	0.0634	99.80
5	DURGAPUR STEEL	Damodar Valley Corporation	1000.00	1.9194	1.8460	96.17
6	KODERMA	Damodar Valley Corporation	1000.00	1.9661	1.8303	93.09
7	UKAI	Gujarat State Electricity Corporation Limited	1110.00	1.2540	1.2358	98.55
8	VIJAYANAGAR	JSW ENERGY LIMITED	860.00	0.2545	0.2545	99.99
9	DONGAMAHUA CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	576.00	0.9551	0.9548	99.97
10	JSW ENERGY (BARMER) LIMITED	JSW ENERGY (BARMER) LIMITED	1080.00	0.8972	0.8468	94.38
11	RAICHUR POWER PLANT	KARNATAKA POWER CORPORATION LIMITED	1720.00	2.0131	1.9668	97.70
12	LALITPUR	LALITPUR POWER GENERATION COMPANY LIMITED	1980.00	2.0943	1.8855	90.03
13	SATPURA	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	1330.00	0.8970	0.8954	99.82
14	NEYVELI - II EXPN	NLC INDIA LIMITED	500.00	0.1334	0.1304	97.79
15	R.K.M. POWERGEN PVT. LTD	R.K.M. POWERGEN PVT. LTD	1440.00	2.4624	2.4602	99.91
16	RINL CAPTIVE TPP	RASHTRIYA ISPAT NIGAM LIMITED	315.00	0.5111	0.4667	91.31
17	RAIPUR TPP	RAIPUR ENERGEN LIMITED	1370.00	2.0409	2.0013	98.06
18	SKS POWER GENERATION (CH) LTD.	SKS POWER GENERATION (CHHATTISGARH) LIMITED	600.00	0.5571	0.5317	95.43
19	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.	1980.00	2.4013	2.1702	90.38

It may be seen from the **Table-XI** above that 19 thermal power stations, during the year 2021-22, have achieved a fly ash utilization level in the range of 90% to less than 100%.

#### **4.5 Thermal Power Stations with Fly Ash Utilization in the Range of 70% to less than 90% during the Year 2021-22**

The Thermal Power Stations with fly ash utilization in the range of 70% to less than 90% during the year 2021-22 are given in **Table-XII** below:

**TABLE-XII**

**THERMAL POWER STATIONS WITH FLY ASH UTILIZATION IN THE RANGE OF 70% TO LESS THAN 90% DURING THE YEAR 2021 – 22**

Sl.	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	1650.00	2.1404	1.5652	73.12
2	TIRODA	ADANI POWER MAHARASHTRA LTD.	3300.00	4.5451	3.5557	78.23
3	ADHUNIK POWER & NATURAL RESOURCES LTD.	ADHUNIK POWER & NATURAL RESOURCES LTD.	540.00	1.1199	0.9762	87.17
4	BOKARO	Damodar Valley Corporation	500.00	0.7555	0.6764	89.53
5	MEJIA	Damodar Valley Corporation	2340.00	4.7724	3.9267	82.28
6	WANAKBORI	Gujarat State Electricity Corporation Limited	2270.00	2.7509	2.2155	80.54
7	O.P. Jindal Super TPP (Stage-I)	JINDAL POWER LIMITED	1000.00	1.8349	1.5543	84.71
8	TAMNAR TPP	JINDAL POWER LIMITED	2400.00	3.5688	3.1956	89.54
9	JAYPEE BINA TPP	JAIPRAKSH POWER VENTURES LIMITED	500.00	0.6873	0.5611	81.64
10	JAYPEE NIGRIE SUPER TPP	JAIPRAKSH POWER VENTURES LIMITED	1320.00	1.5794	1.4143	89.55
11	BALLARI	KARNATAKA POWER CORPORATION LIMITED	1700.00	1.7030	1.2838	75.39
12	LANCO AMARKANTAK TPS	LANCO AMARKANTAK POWER LIMITED	600.00	1.1070	0.8297	74.95

Sl.	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	MAITHON RIGHT BANK TPP	MAITHON POWER LIMITED	1050.00	1.8518	1.6577	89.52
14	SANJAY GANDHI	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	1340.00	1.8895	1.3509	71.50
15	KHAPARKHEDA	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	1340.00	2.5825	1.8908	73.22
16	KORADI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	2190.00	2.957939	2.39974	81.13
17	KAHALGAON SUPER	NTPC LTD.	2340.00	4.2309	3.3273	78.64
18	SOLAPUR SUPER TPS	NTPC LTD.	1320.00	1.1357	0.8579	75.54
19	BARAUNI	NTPC LTD.	610.00	0.6011	0.4772	79.39
20	ROURKELA CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	120.00	0.4263	0.3539	83.01
21	VALLUR	NTPC TAMILNADU ENERGY COMPANY LTD (NTECL) (NTPC-JV)	1500.00	2.4466	1.9107	78.10
22	MEJA TPP	MEJA URJA NIGAM PRIVATE LIMITED (NTPC-JV)	1320.00	1.8226	1.3207	72.47
23	NALCO, CPP ANGUL	NATIONAL ALUMINIUM COMPANY LIMITED	1200.00	2.6936	2.3066	85.63
24	GURU HARGOBIND TPP, LEHRA MOHABAT	PUNJAB STATE POWER CORPORATION LIMITED	920.00	0.4945	0.3483	70.44
25	GVK POWER (GOINDWALSAHIB ) LTD.	PUNJAB STATE POWER CORPORATION LIMITED	540.00	0.4392	0.3452	78.60
26	PRAYAGRAJ TPS	PRAYAGRAJ POWER GENERATION COMPANY LTD.	1980.00	2.4194	2.1075	87.11
27	CHHABRA SUPER CRITICAL TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1320.00	0.9949	0.8180	82.22
28	ROSA TPP	ROSA POWER SUPPLY COMPANY LIMITED	1200.00	1.3284	1.0491	78.98



Sl.	Name of TPS	Power Utility	Installed Capacity (Mega Watts)	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.				(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
29	AMARAVATI TPS	RATTANINDIA POWER LTD.	1350.00	2.3922	1.9421	81.19
30	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	1600.00	1.3131	1.1415	86.93
31	CUDDALORE - TAQA	TAQA NEYVELLY POWER CO.PVT. LTD.	250.00	0.0761	0.0639	83.98
32	KAKATIYA (Stage-I)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	500.00	0.7773	0.6475	83.30
33	KAKATIYA (Stage-II)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	600.00	0.7602	0.6493	85.42
34	SAGARDIGHI	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1600.00	2.3600	1.8778	79.57

It may be seen from the **Table - XII** above, that 34 thermal power stations, during the year 2021-22, have achieved a fly ash utilization level in the range of 70 % to less than 90%.

#### **4.6 Thermal Power Stations with Fly Ash Utilization in the range 50% to less than 70% during the Year 2021-22:**

The Thermal Power Stations with fly ash utilization in the range of 50% to less than 70% during the year 2021-22 are given in **Table-XIII**:

**TABLE-XIII****THERMAL POWER STATIONS WITH FLY ASH UTILIZATION IN THE RANGE OF  
50% TO LESS THAN 70% DURING THE YEAR 2021-22**

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	SRI DAMODARAM SANJEEVAIAH	Andhra Pradesh Power Development Company Limited	1600.00	1.2329	0.8031	65.14
2	Atal Bihari Vajpayee TPP	Chattisgarh State Power Generation Company Ltd.	1000.00	1.5134	1.0379	68.58
3	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	1200.00	2.4016	1.2906	53.74
5	JHABUA POWER LIMITED	JHABUA POWER LIMITED	600.00	1.0217	0.5690	55.69
4	SINGRAULI	NTPC LTD.	2000.00	3.0245	1.740384	57.54
6	KORBA SUPER	NTPC LTD.	2600.00	5.0667	2.8895	57.03
7	VINDHYACHAL	NTPC LTD.	4760.00	8.2382	4.3700	53.05
8	RIHAND	NTPC LTD.	3000.00	3.7085	2.1983	59.28
9	TALCHER - KANIHA	NTPC LTD.	3000.00	6.8777	3.7592	54.66
10	SIPAT SUPER	NTPC LTD.	2980.00	5.1977	3.0803	59.26
11	BONGAIGAON	NTPC LTD.	750.00	0.7573	0.4393	58.01
12	KUDGI	NTPC LTD.	2400.00	1.3351	0.7179	53.77
13	LARA SUPER TPS	NTPC LTD.	1600.00	3.2342	1.8232	56.37
14	KHARGONE SUPER THERMAL POWER STATION	NTPC LTD.	1320.00	1.3669	0.79871	58.43
15	DARLIPALI SUPER TPS	NTPC LTD.	1600.00	3.0627	1.7770	58.02
16	BHILAI PP-II	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	74.00	0.1806	0.1083	59.98
17	BHILAI PP - III	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	500.00	1.1421	0.66023	57.81
18	NABINAGAR- BRBCL	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	1000.00	1.6124	0.9127	56.60
19	NABINAGAR-NPGC	NPGC (NTPC-JV)	1320.00	1.6838	0.8596	51.06

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)
20	CHHABRA	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1000.00	0.9623	0.6222	64.65
21	SASAN UMPP TPP	REILIANCE POWER LIMITED	3960.00	5.3475	2.7994	52.35
22	THE DURGAPUR PROJECTS POWER STATION	THE DURGAPUR PROJECTS LIMITED	550.00	0.7238	0.4812	66.48
23	KOTHAGUDEM-V	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	500.00	1.1731	0.6750	57.54
24	KOTHAGUDEM-VI	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	500.00	0.6761	0.4390	64.93
25	KOTHAGUDEM-VII	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	800.00	0.9470	0.5190	54.80
26	RAIGARH TPP	TRN ENERGY PRIVATE LIMITED	600.00	0.2273	0.1139	50.12
27	PARICHHA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	920.00	1.1066	0.7457	67.39
28	SANTALDIH TPS	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	500.00	1.4024	0.7772	55.42

It may be seen from the **Table - XIII** above that, **28** thermal power stations during the year 2021-22 have achieved a fly ash utilization level in the range of 50% to less than 70%.

#### **4.7 Thermal Power Stations with Fly Ash Utilization below 50% during the Year 2021-22:**

The Thermal Power Stations with fly ash utilization less than 50% during the year 2021-22 are given in **Table – XIV**:

**TABLE - XIV**  
**THERMAL POWER STATIONS WITH FLY ASH UTILIZATION BELOW 50%**  
**DURING THE YEAR 2021-22**

Sl	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(Mega Watts)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Dr. Shyama Prasad Mukharjee TPP	Chattisgarh State Power Generation Company Ltd.	500.00	1.2289	0.2581	21.00
2	Hasdeo TPP	Chattisgarh State Power Generation Company Ltd.	1340.00	2.8455	1.1676	41.03
3	DURGAPUR	Damodar Valley Corporation	210.00	0.1285	0.0579	45.03
4	RAGHUNATHPUR	Damodar Valley Corporation	1200.00	1.8285	0.1231	6.73
5	ANGUL CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	810.00	1.2830	0.4550	35.46
6	ANPARA 'C' TPS	LANCO ANPARA POWER LIMITED	1200.00	1.7101	0.2191	12.81
7	MAHAN	MAHAN ENERGEN LTD.	1200.00	0.8359	0.2128	25.46
8	AMARKANTAK	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	210.00	0.3582	0.1400	39.09
9	SHREE SINGAJI TPS	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	2520.00	2.7398	0.9937	36.27
10	CHANDRAPUR	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	2920.00	4.5013	0.8767	19.48
11	MEENAKSHI ENERGY LIMITED	MEENAKSHI ENERGY LIMITED	300.00	0.0172	0.0016	9.51
12	GADARWARA SUPER	NTPC LTD.	1600.00	1.6850	0.6343	37.64
13	IB VALLEY	ODISHA POWER GENERATION CORPORATION LIMITED	1740.00	3.5855	0.9812	27.37
14	RAIGARH TPP	RAIGARH ENERGY GENERATION LIMITED	600.00	1.0950	0.4100	37.44

SI	Name of TPS	Power Utility	Installed Capacity	Fly ash Generation	Fly ash Utilization	Percentage Utilization
No.			(Mega Watts)	(Million Tonnes)	(Million Tonnes)	( % )
(1)	(2)	(3)	(4)	(5)	(6)	(7)
15	TUTICORIN	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	1050.00	1.5117	0.6393	42.29
16	ANPARA 'A' & 'B'	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	2630.00	3.9928	0.1048	2.62
17	OBRA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	1000.00	1.3742	0.0755	5.49
18	BAKRESWAR	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1050.00	1.7510	0.4807	27.45

It may be seen from the **Table - XIV** above, that 18 Thermal Power Stations have achieved a fly ash utilization level in the range of less than 50% during the year 2021-22.

#### **4.8 THERMAL POWER STATIONS WITH NO ASH GENERATION DURING THE YEAR 2021-22:**

The Thermal Power Stations with NO FLY ASH generation during the year 2021-22 are given in **Table – XV**:

**TABLE - XV**  
**LIST OF THERMAL POWER STATIONS WITH NO ASH GENERATION**  
**DURING THE YEAR 2021-22**

SI.	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Remarks
No.					
(1)	(2)	(3)	(4)	(5)	(6)
1	SVPPL Renki	ACB (INDIA) Ltd.	12.10.2011	60.00	
2	MIHAN	Abhijeet MADC Nagpur Energy Pvt. Ltd.	05.01.2011	246.00	
3	Titagarh Generating Station	CESC Ltd.	05.03.1983	240.00	

Sl. No.	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
4	SALAYA TPS	ESSAR POWER GUJARAT LTD.	29.2.2012	1200.00	closed since 26.06.2020
5	BELA TPS	IDEAL ENERGY PROJECTS LIMITED	18.07.2013	270.00	
6	GURU NANAKDEV TPS, BATHINDA	PUNJAB STATE POWER CORPORATION LIMITED	22.09.1974	460.00	
7	GIRAL TPS	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	2007	250.00	
8	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	02.05.2015	25.00	
9	BUTIBORI	VIDARBHA INDUSTRIES POWER LTD.	04.04.2013	600.00	

It may be seen from the **Table - XV** above, that 09 Thermal power stations during the year 2021-22 have not generated any fly ash.

#### **5.0 FLY ASH UTILIZATION STATUS AS PER NOTIFICATION OF 3RD NOVEMBER, 2009 DURING THE YEAR 2021-22 (TARGET ACHIEVED AND NOT ACHIEVED):**

As per the targets mandated by the MoEF's notification dated 3rd November 2009 for fly ash utilization by the power stations, a total of 93 stations achieved their target and as many as 98 Nos. could not reach the targets. The details are given at **Table - XVI** and **Table - XVII** respectively. However, the date of achieving the 100% ash utilization target is now extended to 31st December 2017 as per the new amendment notification dated 25th January 2016.

**TABLE-XVI**

**FLY ASH UTILIZATION STATUS AS PER NOTIFICATION OF 3RD NOVEMBER, 2009  
DURING THE YEAR 2021-22 (TARGET ACHIEVED)**

Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	AARTI STEELS LIMITED	AARTI STEELS LIMITED	01.03.2010	80.00	0.2612	0.2612	100.00	100	Achieved
2	Dr. N.T.R TPS	APGENCO	01.11.1979	1760.00	4.1629	4.1664	100.08	100	Achieved
3	CHAKABU RA TPP	ACB (INDIA) Ltd.	27.02.2007	30.00	0.0881	0.0881	100.00	100	Achieved
4	CHAKABU RA TPP (EXTN)	ACB (INDIA) Ltd.	28.03.2014	30.00	0.0895	0.0895	100.00	100	Achieved
5	RATIJA TPS	ACB (INDIA) Ltd.	27.02.2013	100.00	0.4558	0.4558	100.00	100	Achieved
6	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	04.08.2009	4620.00	0.3448	0.3566	103.41	100	Achieved
7	KAWAI	ADANI POWER RAJASTHAN LTD.	31.05.2013	1320.00	1.5625	1.5648	100.15	100	Achieved
8	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	01.07.1995	500.00	0.6346	0.6710	105.74	100	Achieved
9	BARKHERA	Bajaj Energy Limited	27.10.2011	90.00	0.0566	0.0567	100.20	100	Achieved
10	KUNDARKI	Bajaj Energy Limited	03.01.2012	90.00	0.0741	0.0742	100.11	100	Achieved
11	BALCO CPP	BALCO	June-2006	540.00	0.9948	1.2077	121.40	100	Achieved
12	BALCO TPP	BALCO	Aug-2015	1200.00	2.1398	2.8268	132.11	100	Achieved
13	BHADRESHWAR VIDYUT PRIVATE LTD TPS	BHADRESHWAR VIDYUT PRIVATE LIMITED	04.01.2015	300.00	0.0215	0.0215	100.41	100	Achieved
14	Budge Budge Generating Station	CESC Ltd.	16.09.1997	750.00	1.0818	1.0818	100.00	100	Achieved
15	Southern Generating Station	CESC Ltd.	12.08.1990	135.00	0.0317	0.0317	100.00	100	Achieved
16	MUTIARA	COASTAL ENERGEN PVT. LTD	23.12.2014	1200.00	0.0674	0.0704	104.47	100	Achieved

Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
17	MUNDRA UMPP	Coastal Gujarat Power Limited	07.03.2012	4150.00	0.0360	0.0420	116.67	100	Achieved
18	CHEMPLAST LIMITED TPS	CHEMPLAST LIMITED	07.03.2012	48.50	0.0192	0.0192	100.26	100	Achieved
19	DB POWER	DB POWER LIMITED	03.11.2014	1200.00	2.9851	3.4076	114.15	100	Achieved
20	CHANDRAPURA	Damodar Valley Corporation	07.07.1968	500.00	1.0576	1.0702	101.19	100	Achieved
21	DHARIWAL INFRASTRUCTURE Ltd.	DHARIWAL INFRASTRUCTURE LIMITED	11.2.2014	600.00	0.9511	0.9511	100.00	100	Achieved
22	SURAT LIGNITE	Gujarat Industries Power Company Limited	15.02.2000	500.00	0.4719	0.4719	100.00	100	Achieved
23	AKRIMOTA	Gujarat Mineral Development Corporation Limited	31.03.2005	250.00	0.1158	0.2246	193.91	100	Achieved
24	GANDHINAGAR	Gujarat State Electricity Corporation Limited	20.03.1990	630.00	0.7560	1.7979	237.82	100	Achieved
25	KUTCH LIGNITE	Gujarat State Electricity Corporation Limited	09.01.1990	150.00	0.1818	0.3085	169.69	100	Achieved
26	SIKKA	Gujarat State Electricity Corporation Limited	14.09.2015	500.00	0.0431	0.4209	976.57	100	Achieved
27	BHAVNAGAR LIGNITE	Gujarat State Electricity Corporation Limited	16.05.2016	500.00	0.1880	0.1935	102.93	100	Achieved
28	GMR WARORA ENERGY LTD.	GMR WARORA ENERGY LTD.	19.03.2013	600.00	0.8208	1.0294	125.41	100	Achieved
29	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY LTD.	30.04.2013	1050.00	2.3240	3.1018	133.47	100	Achieved
30	RAJIV GANDHI TPP, Hissar	Haryana Power Generation Corporation Limited	24.08.2010	1200.00	0.7219	1.1491	159.18	100	Achieved



Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in %age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
31	Deen Bandhu Chhotu Ram TPS, YAMUNAN AGAR	Haryana Power Generation Corporation Limited	14.04.2008	600.00	0.7770	1.2766	164.29	100	Achieved
32	PANIPAT	Haryana Power Generation Corporation Limited	28.03.1989	710.00	0.7555	8.2513	1092.10	100	Achieved
33	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	28.01.2015	600.00	1.0940	1.0940	100.00	100	Achieved
34	HINDUJA NATIONAL POWER CORPORATION LIMITED	HINDUJA NATIONAL POWER CORPORATION LIMITED	11.01.2016	1040.00	0.0845	0.4047	478.97	100	Achieved
35	DISHERGARH POWER STATION	INDIA POWER CORPORATION LTD.	25.09.2012	12.00	0.0166	0.0166	100.00	100	Achieved
36	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS LTD.	Feb-1989	200.00	0.5201	0.5201	100.00	100	Achieved
37	IL & FS TAMIL NADU POWER COMPANY LTD.	IL & FS TAMIL NADU POWER COMPANY LIMITED	29.09.2015	1200.00	0.0766	0.0766	100.00	100	Achieved
38	JK CAPTIVE POWER PLANT	JK CEMENT WORKS MUDDAPUR	02.11.2009	50.00	0.0141	0.0141	100.00	100	Achieved
39	MAHATMA GANDHI TPP	JHAJJAR POWER LIMITED	29.03.2012	1320.00	1.8045	1.8045	100.00	100	Achieved
40	RATNAGIRI	JSW ENERGY LIMITED	01.09.2010	1200.00	0.3599	0.3600	100.02	100	Achieved
41	JSW STEEL LIMITED CPP-II	JSW STEEL LIMITED	24.07.2006	90.00	0.0094	0.0094	100.30	100	Achieved
42	JINDAL STEEL AND POWER LIMITED (CPP)	JINDAL STEEL AND POWER LIMITED	1996	299.00	0.3299	0.3299	100.00	100	Achieved
43	KMPCL - NARIYARA	KSK MAHANADI POWER	Sept,2013	1800.00	2.0586	2.2392	108.77	100	Achieved

Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		COMPANY LIMITED							
44	BHUSAWAL	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	18.09.1982	1210.00	1.9071	1.9251	100.94	100	Achieved
45	NASHIK	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	26.04.1979	630.00	0.6670	5.3617	803.91	100	Achieved
46	PARLI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	01.11.2007	750.00	0.7856	19.0800	2428.62	100	Achieved
47	PARAS	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	31.03.2008	500.00	0.8072	1.2009	148.78	100	Achieved
48	MCCPL BANDHAKHAR	MARUTI CLEAN COAL AND POWER LIMITED	30.07.2015	300.00	0.6756	0.6756	100.00	100	Achieved
49	SAI WARDHA POWER Ltd., WARORA	SAI WARDHA POWER GENERATION PVT LTD.	15.04.2010	540.00	0.4221	0.4221	100.00	100	Achieved
50	ANUPPUR TPS	MB POWER (MADHYA PRADESH) LIMITED	20.05.2015	1200.00	2.1848	2.1894	100.21	100	Achieved
51	NEYVELI - I EXPN	NLC INDIA LIMITED	21.10.2002	420.00	0.0195	0.0195	100.00	100	Achieved
52	NEYVELI - II	NLC INDIA LIMITED	29.03.1986	1470.00	0.6339	1.5598	246.09	100	Achieved
53	NEYVELI NEW THERMAL POWER STATION	NLC INDIA LIMITED	28.12.2019	1000.00	0.3127	0.3127	100.00	70	Achieved
54	BARSINGGAR LIGNITE	NLC INDIA LIMITED	27.10.2009	250.00	0.1910	0.1910	100.00	100	Achieved
55	NLC TAMILNADU POWER Ltd	NLC TAMILNADU POWER LIMITED	08.03.2015	1000.00	1.1385	1.1385	100.00	100	Achieved

Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
56	RAMAGUN DAM SUPER	NTPC LTD.	11/1/1983	2600.00	3.9383	5.5501	140.92	100	Achieved
57	FARAKKA SUPER	NTPC LTD.	1/1/1986	2100.00	2.7881	3.8222	137.09	100	Achieved
58	DADRI	NTPC LTD.	Oct,1991	1820.00	1.2853	1.2869	100.13	100	Achieved
59	FEROZE GANDHI UNCHAHA R	NTPC LTD.	11/1/1988	1550.00	2.0848	3.3188	159.19	100	Achieved
60	SIMHADRI SUPER	NTPC LTD.	2/1/2002	2000.00	3.5916	4.0174	111.86	100	Achieved
61	TANDA	NTPC LTD.	1/1/2000	1760.00	2.2564	3.0558	135.43	100	Achieved
62	MOUDA SUPER TPS	NTPC LTD.	4/1/2012	2320.00	3.4059	3.7864	111.17	100	Achieved
63	BARH SUPER TPS	NTPC LTD.	11/1/2014	1980.00	2.1564	3.4101	158.14	100	Achieved
64	DURGAPUR CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	17.02.1987	120.00	0.2774	0.2906	104.75	100	Achieved
65	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC-JV)	11.2013	610.00	0.7890	1.3230	167.68	100	Achieved
66	INDIRA GANDHI	ARAVALI POWER CORPORATION PVT LTD (NTPC-JV)	31.10.2010	1500.00	1.6420	2.6160	159.32	100	Achieved
67	MEJA TPP	MEJA URJA NIGAM PRIVATE LIMITED (NTPC-JV)	30.04.2019	1320.00	1.8226	1.3207	72.47	70	Achieved
68	RAJPURA TPS	NABHA POWER LIMITED	24.01.2014	1400.00	1.9556	1.9570	100.07	100	Achieved
69	OPG POWER GENERATION PRIVATE LIMITED	OPG POWER GENERATION PRIVATE LIMITED	01.08.2010	414.00	0.1030	0.1030	100.00	100	Achieved
70	GURU GOBIND SINGH TPP, ROPAR	PUNJAB STATE POWER CORPORATION LIMITED	31.03.1988	840.00	0.4240	1.3636	321.62	100	Achieved

Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in %	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
71	SURATGARH	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	31.10.1998	1500.00	0.9786	1.8438	188.42	100	Achieved
72	KALISINDH SUPER TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	07.05.2014	1200.00	1.4069	1.4298	101.62	100	Achieved
73	KOTA SUPER THERMAL POWER STATION	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	17.01.1983	1240.00	1.7071	2.0508	120.13	100	Achieved
74	SAI LILAGAR POWER GENERATION LTD.	SAI LILAGAR POWER GENERATION LIMITED	2009	86.00	0.0041	0.0041	100.00	100	Achieved
75	SEMBCORP ENERGY INDIA LTD.	SEMBCORP ENERGY INDIA LTD.	Mar-15	1320.00	1.6994	1.6999	100.03	100	Achieved
76	SINGARENI TPP	THE SINGARENI COLLIERIES COMPANY LIMITED	25.09.2016	1200.00	1.9320	2.2660	117.29	100	Achieved
77	JOJOBERA	THE TATA POWER COMPANY LIMITED	April,1996	547.50	1.0042	1.0140	100.97	100	Achieved
78	TROMBAY	THE TATA POWER COMPANY LIMITED	1984	750.00	0.0548	0.0548	100.00	100	Achieved
79	SABARMA TI TPS	TORRENT POWER LTD.	12.10.1978	362.00	0.3739	0.3739	100.00	100	Achieved
80	METTUR-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	07.01.1987	840.00	1.4106	1.4286	101.28	100	Achieved
81	METTUR-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	11.10.2012	600.00	0.7632	0.7632	100.00	100	Achieved
82	NORTH CHENNAI-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	25.10.1994	630.00	1.0188	1.4507	142.40	100	Achieved

Sl. No.	Name of TPS	Name of Power Utility	Date of Commissioning	Installed Capacity (MW)	Fly Ash Generation (Million-tonne)	Fly Ash Utilization (Million-tonne)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
83	NORTH CHENNAI-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Mar-13	1200.00	1.4890	1.5591	104.71	100	Achieved
84	RAMAGUN DAM 'B'	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	17.10.1971	62.50	0.0881	0.2298	260.94	100	Achieved
85	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	14.04.1994	420.00	0.3973	0.4478	112.70	100	Achieved
86	HARDUAG ANJ	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	28.05.1978	1270.00	0.5519	1.1912	215.84	100	Achieved
87	UDUPI	UDUPI POWER CORPORATION LIMITED	11.11.2010	1200.00	0.0572	0.0587	102.62	100	Achieved
88	VS LIGNITE POWER PRIVATE LTD	VS LIGNITE POWER PRIVATE LIMITED	FEB 2010	135.00	0.2265	0.2265	100.00	100	Achieved
89	VEDANTA LTD TPP	VEDANTA LIMITED	09.11.2010	2400.00	4.4006	5.2762	119.90	100	Achieved
90	VEDANTA LTD CPP	VEDANTA LIMITED	30.07.2008	1215.00	0.3464	4.2202	1218.21	100	Achieved
91	KOLAGHAT	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	16.08.1990	1260.00	1.4819	1.6494	111.30	100	Achieved
92	BANDEL	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	04.09.1965	335.00	0.5836	0.6317	108.24	100	Achieved
93	SITAPURAM TPS	ZUARI CEMENT LIMITED	01.03.2008	43.00	0.1017	0.1017	100.00	100	Achieved

**Note: Target of fly ash utilization as per MoEF Notification 3rd NOVEMBER, 2009:**

(1) At least 50% of fly ash generation – One year from the date of Commissioning

At least 70% of fly ash generation - Two years from the date of Commissioning

At least 90% of fly ash generation - Three years from the date of Commissioning

At least 100% of fly ash generation - Four years from the date of Commissioning

(2)\*(Less than 50% for Thermal Power Stations commissioned within one year from the date of commissioning)

(3) Cut-off Date for utilization target was 31.12.2017

### **TABLE-XVII**

### **FLY ASH UTILIZATION STATUS AS PER NOTIFICATION OF 3RD NOVEMBER, 2009 DURING THE YEAR 2021-22 (THERMAL POWER STATIONS WHO HAVE NOT MET THEIR TARGET)**

Sl No.	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	RAYALSEEMA	APGENCO	16.11.1994	1650.00	2.1404	1.5652	73.12	100	Not Achieved
2	SRI DAMODARAM SANJEEVAIAH	Andhra Pradesh Power Development Company Limited	05.02.2015	1600.00	1.2329	0.8031	65.14	100	Not Achieved
3	KASAIPALI	ACB (INDIA) Ltd.	13.12.2011	270.00	0.8801	0.8799	99.98	100	Not Achieved
4	TIRODA	ADANI POWER MAHARASHTRA LTD.	23.09.2012	3300.00	4.5451	3.5557	78.23	100	Not Achieved
5	ADHUNIK POWER & NATURAL RESOURCES LTD.	ADHUNIK POWER & NATURAL RESOURCES LTD.	21.01.2013	540.00	1.1199	0.9762	87.17	100	Not Achieved
6	KHAMBHAR KHERA	Bajaj Energy Limited	30.09.2011	90.00	0.0517	0.0517	99.93	100	Not Achieved
7	MAQSOODAPUR	Bajaj Energy Limited	27.10.2011	90.00	0.0545	0.0545	99.90	100	Not Achieved
8	UTRAULA	Bajaj Energy Limited	30.01.2012	90.00	0.0635	0.0634	99.80	100	Not Achieved
9	Atal Bihari Vajpayee TPP	Chattisgarh State Power Generation Company Ltd.	31.03.2016	1000.00	1.5134	1.0379	68.58	100	Not Achieved
10	Dr. Shyama Prasad Mukharjee TPP	Chattisgarh State Power Generation Company Ltd.	21.10.2007	500.00	1.2289	0.2581	21.00	100	Not Achieved
11	Hasdeo TPP	Chattisgarh State Power Generation Company Ltd.	21.03.1983	1340.00	2.8455	1.1676	41.03	100	Not Achieved
12	BOKARO	Damodar Valley Corporation	31.03.1993	500.00	0.7555	0.6764	89.53	100	Not Achieved

SI	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
13	DURGAPUR	Damodar Valley Corporation	Sep,1982	210.00	0.1285	0.0579	45.03	100	Not Achieved
14	MEJIA	Damodar Valley Corporation	01.12.1997	2340.00	4.7724	3.9267	82.28	100	Not Achieved
15	DURGAPUR STEEL	Damodar Valley Corporation	15.05.2012	1000.00	1.9194	1.8460	96.17	100	Not Achieved
16	KODERMA	Damodar Valley Corporation	18.07.2013	1000.00	1.9661	1.8303	93.09	100	Not Achieved
17	RAGHUNATHPUR	Damodar Valley Corporation	31.03.2016	1200.00	1.8285	0.1231	6.73	100	Not Achieved
18	UKAI	Gujarat State Electricity Corporation Limited	21.01.1979	1110.00	1.2540	1.2358	98.55	100	Not Achieved
19	WANAKBORI	Gujarat State Electricity Corporation Limited	23.03.1982	2270.00	2.7509	2.2155	80.54	100	Not Achieved
20	O.P. Jindal Super TPP (Stage-I)	JINDAL POWER LIMITED	08.12.2007	1000.00	1.8349	1.5543	84.71	100	Not Achieved
21	TAMNAR TPP	JINDAL POWER LIMITED	14.03.2014	2400.00	3.5688	3.1956	89.54	100	Not Achieved
22	JAYPEE BINA TPP	JAIPRAKSH POWER VENTURES LIMITED	31.08.2012	500.00	0.6873	0.5611	81.64	100	Not Achieved
23	JAYPEE NIGRIE SUPER TPP	JAIPRAKSH POWER VENTURES LIMITED	03.09.2014	1320.00	1.5794	1.4143	89.55	100	Not Achieved
24	VIJAYANAGAR	JSW ENERGY LIMITED	18.01.2000	860.00	0.2545	0.2545	99.99	100	Not Achieved
25	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	05.06.2014	1200.00	2.4016	1.2906	53.74	100	Not Achieved
26	DONGAMAHUA CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	04.09.2010	576.00	0.9551	0.9548	99.97	100	Not Achieved
27	ANGUL CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	13.05.2011	810.00	1.2830	0.4550	35.46	100	Not Achieved
28	JSW ENERGY (BARMER) LIMITED	JSW ENERGY (BARMER) LIMITED	26.11.2009	1080.00	0.8972	0.8468	94.38	100	Not Achieved
29	JHABUA POWER LIMITED	JHABUA POWER LIMITED	03.05.2016	600.00	1.0217	0.5690	55.69	100	Not Achieved
30	BALLARI	KARNATAKA POWER CORPORATION LIMITED	25.03.2008	1700.00	1.7030	1.2838	75.39	100	Not Achieved
31	RAICHUR POWER PLANT	KARNATAKA POWER CORPORATION LIMITED	29.03.1985	1720.00	2.0131	1.9668	97.70	100	Not Achieved
32	LANCO AMARKANTA K TPS	LANCO AMARKANTAK POWER LIMITED	01.05.2009	600.00	1.1070	0.8297	74.95	100	Not Achieved

SI	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
33	LALITPUR	LALITPUR POWER GENERATION COMPANY LIMITED	08.01.2016	1980.00	2.0943	1.8855	90.03	100	Not Achieved
34	ANPARA 'C' TPS	LANCO ANPARA POWER LIMITED	10.12.2011	1200.00	1.7101	0.2191	12.81	100	Not Achieved
35	MAHAN	MAHAN ENERGEN LTD.	29.04.2013	1200.00	0.8359	0.2128	25.46	100	Not Achieved
36	MAITHON RIGHT BANK TPP	MAITHON POWER LIMITED	01.09.2011	1050.00	1.8518	1.6577	89.52	100	Not Achieved
37	SANJAY GANDHI	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	07.10.1993	1340.00	1.8895	1.3509	71.50	100	Not Achieved
38	SATPURA	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	07.01.1979	1330.00	0.8970	0.8954	99.82	100	Not Achieved
39	AMARKANTAK	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	10.09.2009	210.00	0.3582	0.1400	39.09	100	Not Achieved
40	SHREE SINGAJI TPS	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	01.02.2014	2520.00	2.7398	0.9937	36.27	100	Not Achieved
41	CHANDRAPUR	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	03.05.1985	2920.00	4.5013	0.8767	19.48	100	Not Achieved
42	KHAPARKHEDA	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	26.03.1989	1340.00	2.5825	1.8908	73.22	100	Not Achieved
43	KORADI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	30.03.1982	2190.00	2.9579	2.3997	81.13	100	Not Achieved
44	MEENAKSHI ENERGY LIMITED	MEENAKSHI ENERGY LIMITED	07.10.2012	300.00	0.0172	0.0016	9.51	100	Not Achieved
45	NEYVELI - II EXPN	NLC INDIA LIMITED	18.05.2011	500.00	0.1334	0.1304	97.79	100	Not Achieved
46	SINGRAULI	NTPC LTD.	Feb-1982	2000.00	3.0245	1.7404	57.54	100	Not Achieved
47	KORBA SUPER	NTPC LTD.	03.01.1983	2600.00	5.0667	2.8895	57.03	100	Not Achieved
48	VINDHYACHAL	NTPC LTD.	10.01.1987	4760.00	8.2382	4.3700	53.05	100	Not Achieved
49	RIHAND	NTPC LTD.	March 1988	3000.00	3.7085	2.1983	59.28	100	Not Achieved
50	KAHALGAON SUPER	NTPC LTD.	03.01.1992	2340.00	4.2309	3.3273	78.64	100	Not Achieved



SI	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
51	TALCHER - KANIHA	NTPC LTD.	02.01.1995	3000.00	6.8777	3.7592	54.66	100	Not Achieved
52	SIPAT SUPER	NTPC LTD.	05.01.2007	2980.00	5.1977	3.0803	59.26	100	Not Achieved
53	BONGAIGAON	NTPC LTD.	June,2015	750.00	0.7573	0.4393	58.01	100	Not Achieved
54	KUDGI	NTPC LTD.	1.12.2016	2400.00	1.3351	0.7179	53.77	100	Not Achieved
55	SOLAPUR SUPER TPS	NTPC LTD.	01.04.2017	1320.00	1.1357	0.8579	75.54	100	Not Achieved
56	LARA SUPER TPS	NTPC LTD.	23.03.2018	1600.00	3.2342	1.8232	56.37	100	Not Achieved
57	BARAUNI	NTPC LTD.	01.05.1983	610.00	0.6011	0.4772	79.39	100	Not Achieved
58	GADARWARA SUPER	NTPC LTD.	29.03.2019	1600.00	1.6850	0.6343	37.64	90	Not Achieved
59	KHARGONE SUPER THERMAL POWER STATION	NTPC LTD.	29.09.2019	1320.00	1.3669	0.7987	58.43	70	Not Achieved
60	DARLIPALI SUPER TPS	NTPC LTD.	01.03.2020	1600.00	3.0627	1.7770	58.02	70	Not Achieved
61	ROURKELA CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	01.03.2001	120.00	0.4263	0.3539	83.01	100	Not Achieved
62	BHILAI PP-II	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	25.08.1982	74.00	0.1806	0.1083	59.98	100	Not Achieved
63	BHILAI PP - III	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	05.01.2009	500.00	1.1421	0.6602	57.81	100	Not Achieved
64	VALLUR	NTPC TAMILNADU ENERGY COMPANY LTD (NTECL) (NTPC-JV)	09.03.2012	1500.00	2.4466	1.9107	78.10	100	Not Achieved
65	NABINAGAR-BRBCL	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	16.01.2017	1000.00	1.6124	0.9127	56.60	100	Not Achieved
66	NABINAGAR-NPGC	NPGC (NTPC-JV)	06.09.2019	1320.00	1.6838	0.8596	51.06	70	Not Achieved
67	NALCO, CPP ANGUL	NATIONAL ALUMINIUM COMPANY LIMITED	29.09.1986	1200.00	2.6936	2.3066	85.63	100	Not Achieved
68	IB VALLEY	ODISHA POWER GENERATION CORPORATION LIMITED	21.12.1994	1740.00	3.5855	0.9812	27.37	100	Not Achieved
69	GURU HARGOBIND TPP, LEHRA MOHABAT	PUNJAB STATE POWER CORPORATION LIMITED	25.05.1998	920.00	0.4945	0.3483	70.44	100	Not Achieved
70	GVK POWER (GOINDWALS AHIB) LTD.	PUNJAB STATE POWER	2016	540.00	0.4392	0.3452	78.60	100	Not Achieved

SI	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		CORPORATION LIMITED							
71	PRAYAGRAJ TPS	PRAYAGRAJ POWER GENERATION COMPANY LTD.	29.02.2016	1980.00	2.4194	2.1075	87.11	100	Not Achieved
72	R.K.M. POWERGEN PVT. LTD	R.K.M. POWERGEN PVT. LTD	23.11.2015	1440.00	2.4624	2.4602	99.91	100	Not Achieved
73	CHHABRA	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	11.06.2010	1000.00	0.9623	0.6222	64.65	100	Not Achieved
74	CHHABRA SUPER CRITICAL TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	09.08.2018	1320.00	0.9949	0.8180	82.22	90	Not Achieved
75	ROSA TPP	ROSA POWER SUPPLY COMPANY LIMITED	12.03.2010	1200.00	1.3284	1.0491	78.98	100	Not Achieved
76	AMARAVATI TPS	RATTANINDIA POWER LTD.	03.06.2013	1350.00	2.3922	1.9421	81.19	100	Not Achieved
77	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	07.03.2017	1600.00	1.3131	1.1415	86.93	100	Not Achieved
78	RINL CAPTIVE TPP	RASHTRIYA ISPAT NIGAM LIMITED	12.03.1989	315.00	0.5111	0.4667	91.31	100	Not Achieved
79	RAIGARH TPP	RAIGARH ENERGY GENERATION LIMITED	31.03.2014	600.00	1.0950	0.4100	37.44	100	Not Achieved
80	RAIPUR TPP	RAIPUR ENERGEN LIMITED	1.06.2015	1370.00	2.0409	2.0013	98.06	100	Not Achieved
81	SASAN UMPP TPP	REILIANCE POWER LIMITED	16.08.2013	3960.00	5.3475	2.7994	52.35	100	Not Achieved
82	SKS POWER GENERATION (CH) LTD.	SKS POWER GENERATION (CHHATTISGARH) LIMITED	06.10.2017	600.00	0.5571	0.5317	95.43	100	Not Achieved
83	THE DURGAPUR PROJECTS POWER STATION	THE DURGAPUR PROJECTS LIMITED	30.04.2008	550.00	0.7238	0.4812	66.48	100	Not Achieved
84	CUDDALORE - TAQA	TAQA NEYVELLY POWER CO.PVT. LTD.	15.12.2002	250.00	0.0761	0.0639	83.98	100	Not Achieved
85	TUTICORIN	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	09.07.1979	1050.00	1.5117	0.6393	42.29	100	Not Achieved
86	KOTHAGUDE M-V	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	01.10.1997	500.00	1.1731	0.6750	57.54	100	Not Achieved
87	KOTHAGUDE M-VI	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	23.10.2011	500.00	0.6761	0.4390	64.93	100	Not Achieved

SI	Name of TPS	Power Utility	Date of Commissioning	Installed Capacity (Mega Watts)	Fly ash Generation (Million Tonnes)	Fly ash Utilization (Million Tonnes)	% Utilization	Target in % age	Status
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
88	KOTHAGUDE M-VII	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	26.12.2018	800.00	0.9470	0.5190	54.80	90	Not Achieved
89	KAKATIYA (Stage-I)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	14.09.2010	500.00	0.7773	0.6475	83.30	100	Not Achieved
90	KAKATIYA (Stage-II)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	24.03.2016	600.00	0.7602	0.6493	85.42	100	Not Achieved
91	RAIGARH TPP	TRN ENERGY PRIVATE LIMITED	14.08.2016	600.00	0.2273	0.1139	50.12	100	Not Achieved
92	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.	05.07.2014	1980.00	2.4013	2.1702	90.38	100	Not Achieved
93	ANPARA 'A' & 'B'	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	01.01.1987	2630.00	3.9928	0.1048	2.62	100	Not Achieved
94	OBRA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	26.01.1980	1000.00	1.3742	0.0755	5.49	100	Not Achieved
95	PARICHHA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	31.03.1984	920.00	1.1066	0.7457	67.39	100	Not Achieved
96	SAGARDIGHI	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	07.09.2008	1600.00	2.3600	1.8778	79.57	100	Not Achieved
97	SANTALDIH TPS	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	01.04.2009	500.00	1.4024	0.7772	55.42	100	Not Achieved
98	BAKRESWAR	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	18.07.1999	1050.00	1.7510	0.4807	27.45	100	Not Achieved

From the above table, it may be seen that 98 Thermal Power Stations have failed to achieve the utilization target.

## 6.0 MODES OF FLY ASH UTILIZATION DURING THE YEAR 2021-22:

The data on fly ash utilization received from Thermal Power Stations / Power Utilities for the year 2021-22 has been analysed to ascertain the modes in which fly ash was utilized and the quantity utilized in each mode.

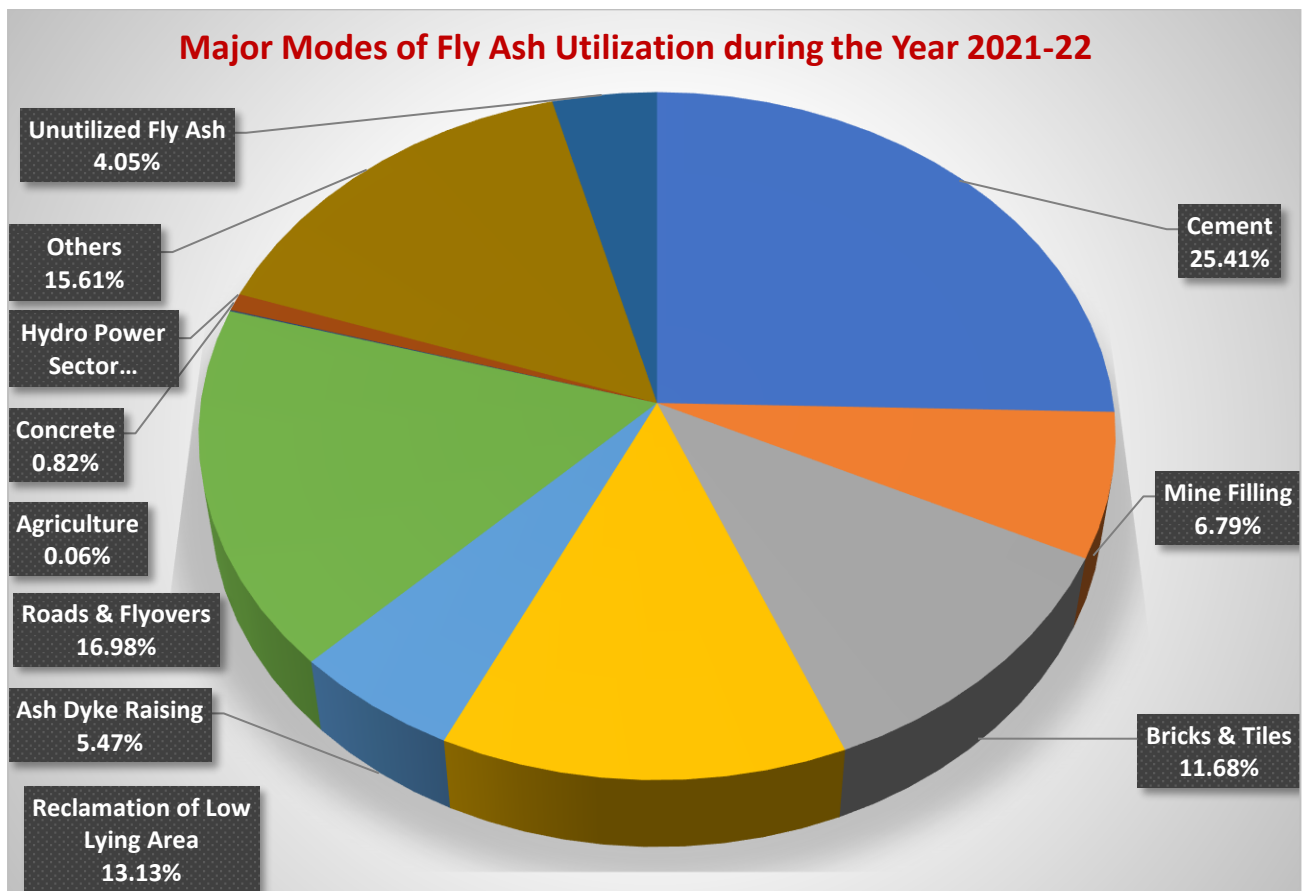
The modes in which fly ash were utilized during the year 2021-22 along with utilization in each mode are given in Table - XVIII below:

**TABLE- XVIII**

### **MODES OF FLY ASH UTILIZATION DURING THE YEAR 2021-22**

Sl. No.	Mode of Utilization	Quantity of Fly Ash Utilized in the Mode of Utilization	Percentage (%)
		(Million tonnes)	
(1)	(2)	(3)	(4)
1	Cement	68.8283	25.41
2	Mine Filling	18.3799	6.79
3	Bricks & Tiles	31.6237	11.68
4	Reclamation of Low Lying Area	35.5694	13.13
5	Ash Dyke Raising	14.8201	5.47
6	Roads & Flyovers	45.9899	16.98
7	Agriculture	0.1541	0.06
8	Concrete	2.2191	0.82
9	Hydro Power Sector	0.0006	0.00
10	Others	42.2778	15.61
11	Unutilised Ash	10.9588	4.05
	<b>Total</b>	<b>270.8216</b>	<b>100.00</b>

The pie diagram showing the modes of utilization of fly ash during the Year 2021-22 is given in Figure-1 below:



**FIGURE-1**

During the Year 2021-22, the maximum utilization of fly ash to the extent of 25.41 % of total fly ash generated was in the Cement sector, followed by 16.98 % in Roads & Flyovers, 13.13 % in Reclamation of Low lying area, 11.68 % in Bricks & Tiles, 6.79 % in Mine Filling, 5.47 % in Ash Dyke Raising, 0.82 % in Concrete, 0.06 % in Agriculture, 0.00 % in Hydro Power Sector, 15.61 % in Others and 4.05 % remained as unutilized fly ash.

#### **7.0 PROGRESSIVE FLY ASH GENERATION & UTILIZATION DURING THE PERIOD FROM 1996-97 TO 2021-22:**

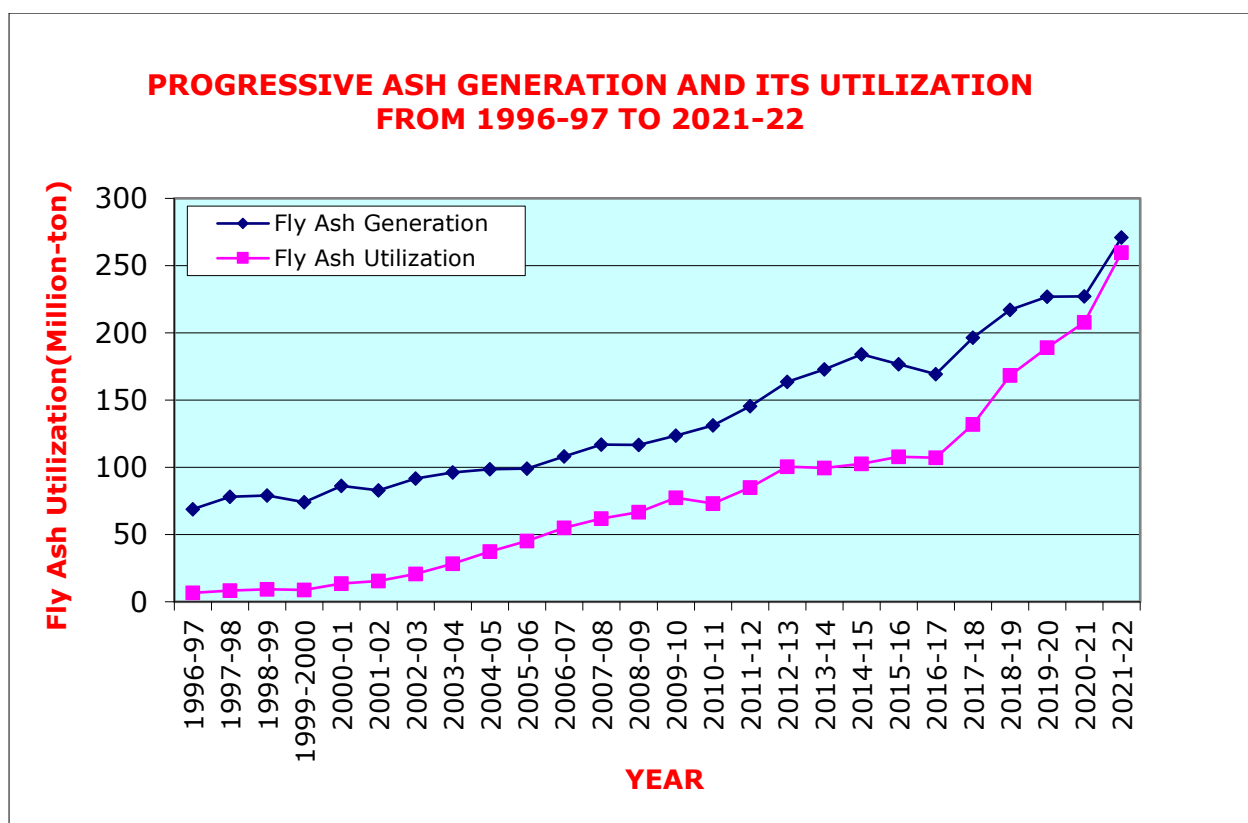
Central Electricity Authority has been monitoring since 1996-1997, the fly ash generation and its utilization at Coal / Lignite based thermal power stations in the country. Based on data of fly ash generation and utilization received from Thermal Power Stations / Power Utilities since 1996-97, the progressive fly ash generation and its utilization for the period from 1996-97 to 2021-22 are given in Table-XIX below:

**TABLE-XIX****PROGRESSIVE FLY ASH GENERATION AND ITS UTILIZATION DURING THE PERIOD  
FROM 1996-97 TO 2021-22**

SI No.	Year	No. of TPS who provided data	Fly Ash Generation	Fly Ash Utilization	Fly Ash Utilization in Percentage
			(Million-tonnes)	(Million-tonnes)	%
(1)	(2)	(3)	(4)	(5)	(6)
1	1996-97	-	68.88	6.64	9.63
2	1997-98	-	78.06	8.43	10.8
3	1998-99	-	78.99	9.22	11.7
4	1999-2000	-	74.03	8.91	12.03
5	2000-01	-	86.29	13.54	15.7
6	2001-02	-	82.81	15.57	18.8
7	2002-03	-	91.65	20.79	22.68
8	2003-04	-	96.28	28.29	29.39
9	2004-05	-	98.57	37.49	38.04
10	2005-06	-	98.97	45.22	45.69
11	2006-07	-	108.15	55.01	50.86
12	2007-08	-	116.94	61.98	53
13	2008-09	-	116.69	66.64	57.11
14	2009-10	-	123.54	77.33	62.6
15	2010-11	88	131.09	73.13	55.79
16	2011-12	124	145.41	85.05	58.48
17	2012-13	138	163.56	100.37	61.37
18	2013-14	143	172.87	99.62	57.63

Sl No.	Year	No. of TPS who provided data	Fly Ash Generation	Fly Ash Utilization	Fly Ash Utilization in Percentage
			(Million-tonnes)	(Million-tonnes)	%
(1)	(2)	(3)	(4)	(5)	(6)
19	2014-15	145	184.14	102.54	55.69
20	2015-16	151	176.74	107.77	60.97
21	2016-17	155	169.25	107.1	63.28
22	2017-18	167	196.44	131.87	67.13
23	2018-19	195	217.04	168.40	77.59
24	2019-20	197	226.95	189.01	83.28
25	2020-21	202	232.56	214.91	92.41
26	2021-22	200	270.82	259.86	95.95

A graph showing progressive fly ash generation and its utilization for the period from 1996-97 to 2021-22 is given in **Figure-2** below:



**FIGURE-2**

It may be seen from **Table-XIX** and **Figure-2** above that:

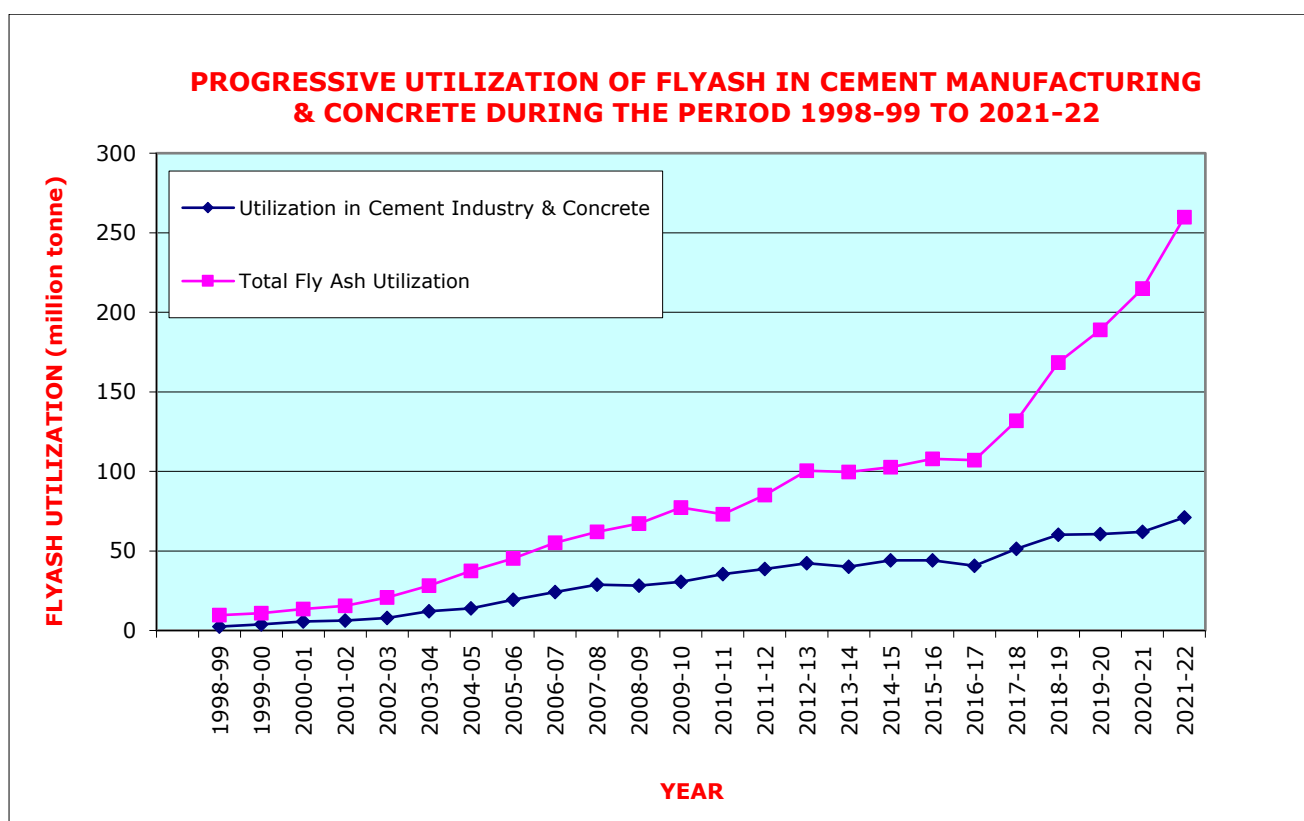
- (i) The fly ash generation as well as utilization has generally been increasing since 1996-97. However, the Fly ash generation has shown a slight downtrend for the year 2016-17 due to lesser coal utilization than 2015-16.
- (ii) Fly ash utilization has increased from 9.63% in 1996-97 to the highest level of 95.95 % during 2021-22.
- (iii) The fly ash generation has increased from 68.88 Million Tonnes in 1996-97 to 270.82 Million Tonnes in 2021-22 i.e. nearly 3.93 times.
- (iv) However, fly ash utilization has increased from 6.64 Million Tonnes in 1996-97 to a level of 259.86 Million Tonnes in 2021-22 i.e. nearly more than 39.14 times over the same period.
- (v) From **Table XIX**, it is seen that quantities of fly ash generation during 2016-17, 2017-18, 2018-19, 2019-20, 2020-21 and 2021-22 have been 169.25, 196.44, 217.04, 226.95, 232.56 and 270.82 Million Tonnes respectively. Fly ash utilization during the said Six years are 107.10, 131.87, 168.40, 189.01, 214.91 and 259.86 Million Tonnes respectively. The utilization of fly ash during 2021-22 is the highest ever so far.
- (vi) The number of Thermal Power Stations that are providing data has been increasing during successive years.



## 8.0 PROGRESSIVE FLY ASH UTILIZATION IN VARIOUS MODES DURING THE PERIOD FROM 1998-99 TO 2021-22:

### 8.1 Cement Industry

Fly ash is being used by Cement Industry as a pozzolanic material in the manufacture of Portland Pozzolana Cement. It saves both precious Lime stone and Coal. The utilization of fly ash in the manufacture of cement is highly value-added use. A graph showing progressive utilization of fly ash by the Cement Industry for the period from 1998-99 to 2021-22 is given in **Figure-3** below:

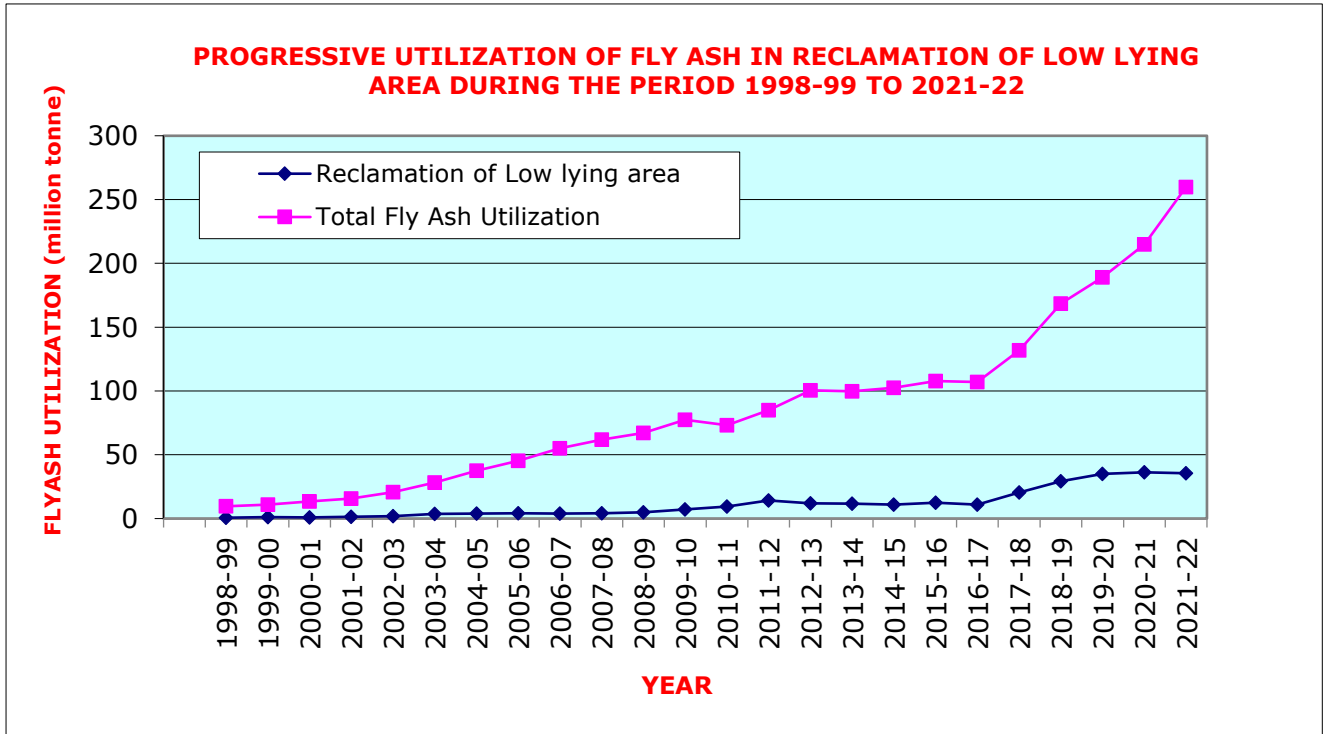


**FIGURE-3**

It may be seen from **Figure-3** above that, 2.45 Million Tonnes of fly ash was used by Cement & Concrete Industry in 1998-99 which increased to 71.05 Million Tonnes during 2021-22 and constituted about 26.23 % of total fly ash generation in the aforesaid year.

## 8.2 Reclamation of Low Lying Areas

Fly ash as a substitute for Soil / Sand is used for reclamation of low lying areas, thereby saving top soil. A graph showing the progressive utilization of fly ash in the reclamation of Low lying Area for the period from 1998-99 to 2021-22 is given in **Figure-4**.

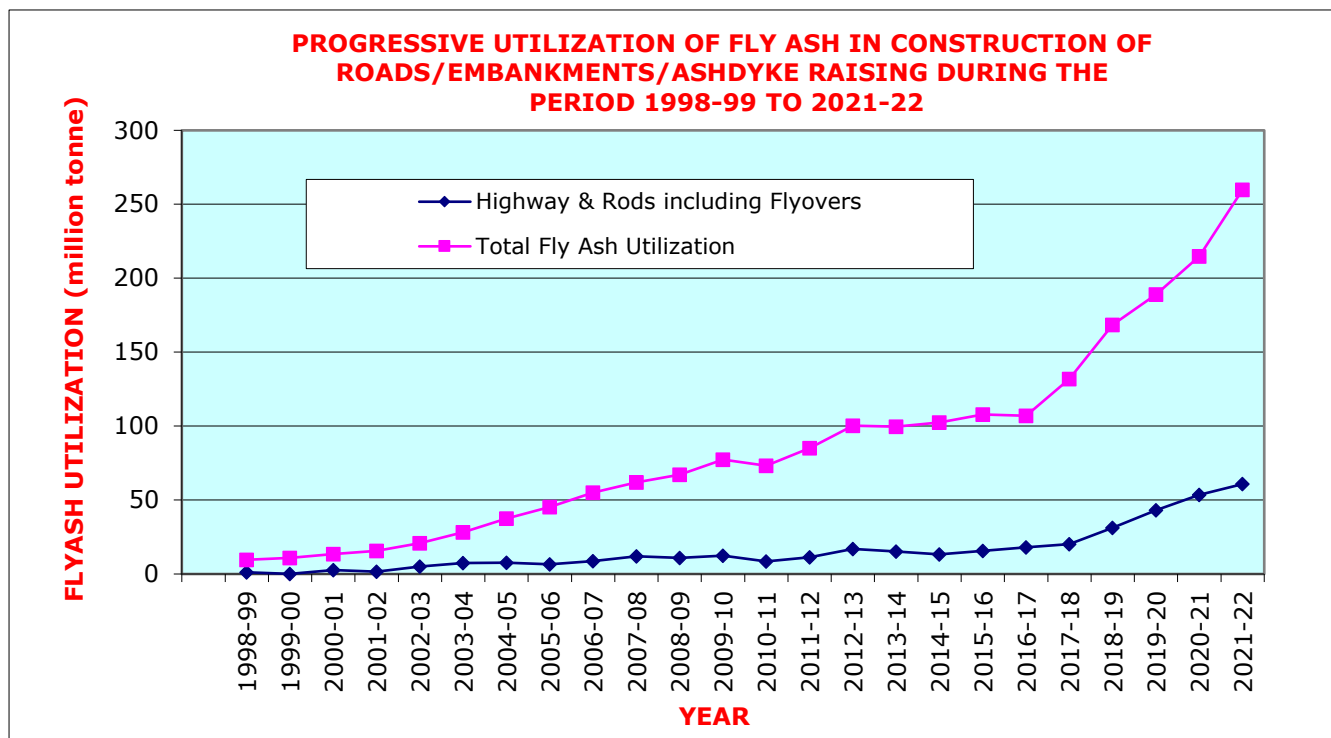


**FIGURE-4**

It may be seen from **Figure-4** above, that 0.65 Million Tonnes of fly ash was used for the Reclamation of Low Lying Area in 1998-99 which has increased to 35.57 Million Tonnes in 2021 - 22 constituting about 13.13 % of total fly ash generation during the aforesaid year.

### 8.3 Construction of Roads / Embankments / Flyovers and Raising of Ash Dykes

Fly ash is being used in the construction of Roads / Embankments / Flyovers and the Raising of Ash Dykes. It has a large potential for fly ash utilization. A graph showing the progressive utilization of fly ash in the construction of roads & embankments and the raising of ash dykes for the period from 1998-99 to 2021-22 is given in **Figure-5** below:

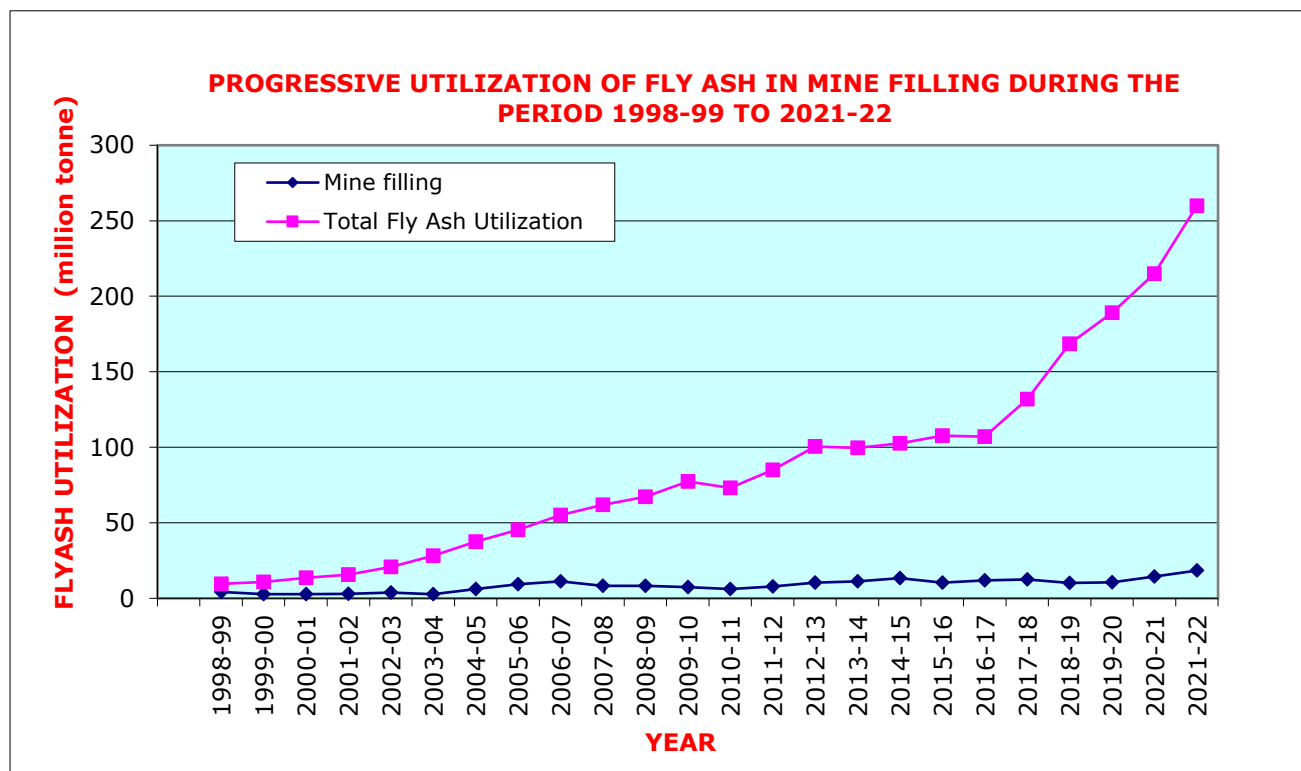


**FIGURE-5**

It may be seen from **Figure-5** above that 1.055 Million Tonnes of fly ash was used in the construction of roads /embankments / flyovers and raising of ash dykes etc. during 1998-99 which increased to 60.81 Million Tonnes in 2021-22 and constituted about 22.45 % of total fly ash generation in the aforesaid year.

#### 8.4 Back Filling / Stowing of Mines :

Fly ash is being used for the backfilling of open cast mines and stowing of underground mines which result in the saving of top fertile soil and precious river sand. It has a large potential for fly ash utilization especially for pit head thermal power stations. A graph showing the progressive utilization of fly ash in the backfilling / stowing of mines for the period from 1998-99 to 2021-22 is given in **Figure-6**:

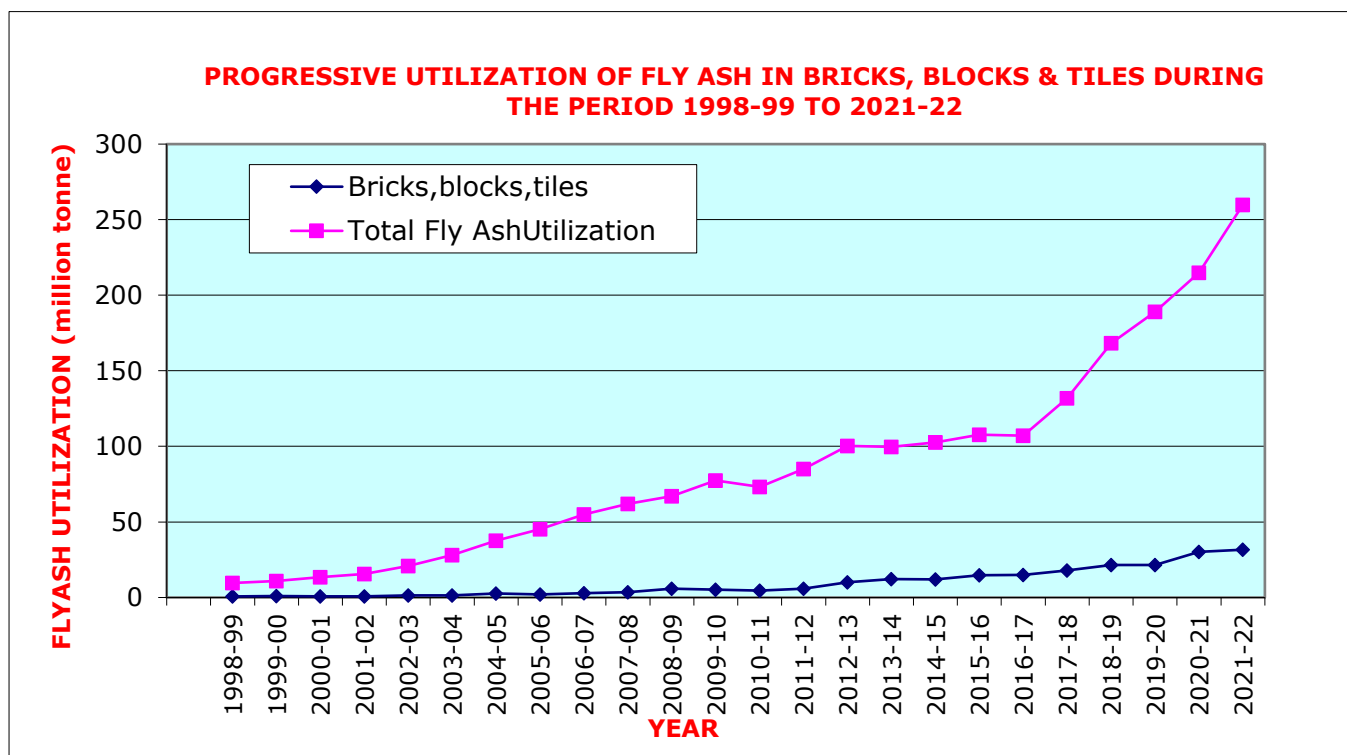


**FIGURE-6**

It may be seen from **Figure-6** above that 4.17 Million tonnes of fly ash was used for backfilling / stowing of open cast and underground mines during 1998-99 to 18.38 Million Tonnes in 2021-22, constituting about 6.79 % of total fly ash generation in the aforesaid year.

## 8.5 Building Materials like Bricks, Blocks and Tiles etc.

Fly ash is used in the manufacturing of fly ash based building products like bricks, blocks, tiles, etc. which results in the saving of fertile topsoil. Fly ash based Bricks / Blocks / Tiles are as good as clay-based conventional building products. It has substantial potential of fly ash utilization especially for thermal power stations located near load centers. A graph showing progressive utilization of fly ash in making of fly ash based building products for the period from 1998-99 to 2021-22 is given in **Figure - 7**.

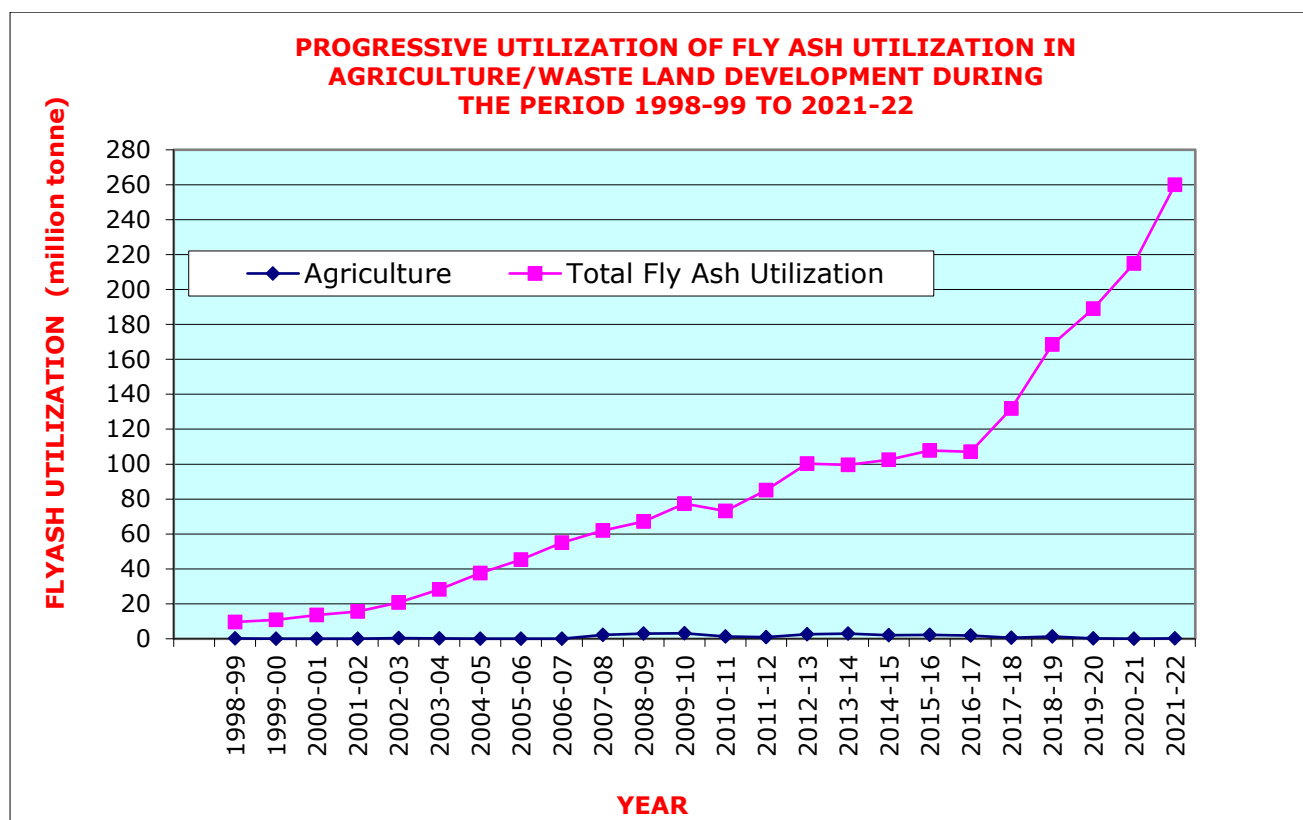


**FIGURE-7**

It may be seen from **Figure-7** above that 0.70 Million Tonnes of fly ash was used for making fly ash based bricks / blocks / tiles etc. during 1998-99 which increased to 31.62 Million Tonnes in 2021-22 and constituted about 11.68 % of total fly ash generation in the aforesaid year.

## 8.6 Agriculture:

Fly ash is being used as manure in the agricultural sector as it has many micro nutrients. The progressive utilization of fly ash in the Agricultural Sector for the period from 1998-99 to 2021-22 is given in Figure-8.



**FIGURE-8**

It may be seen from Figure-8 above that 0.13 Million Tonnes of fly ash was used in the agricultural sector during 1998-99, which has decreased to 0.15 Million Tonnes in 2021-22 constituted about 0.06 % of total fly ash generation in the aforesaid year.

## 9.0 LEGACY ASH As on 31.03.2022 :

The Ash Stock (Legacy Ash) details as provided by the Thermal Power Plants as on 31.03.2022 is shown below:

(Total Ash Stock Position as on 31.3.202  
1, 30.9.2021 & 31.3.2022)

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	AARTI STEELS LIMITED	AARTI STEELS LIMITED	ODISHA	80.00	0.0012	0.0000	0.0000
2	Dr. N.T.R TPS	APGENCO	Andhra Pradesh	1760.00	42.1770	42.1089	42.0210
3	RAYALSEEMA	APGENCO	Andhra Pradesh	1650.00	15.6520	15.8310	16.2252
4	SRI DAMODARAM SANJEEVAIAH	Andhra Pradesh Power Development Company Limited	Andhra Pradesh	1600.00	2.7930	2.9706	3.2228
5	KASAIPALI	ACB (INDIA) Ltd.	Chhattisgarh	270.00	0.6872	0.6872	0.6872
6	SVPPL Renki	ACB (INDIA) Ltd.	Chhattisgarh	60.00	0.0000	0.0000	0.0000
7	CHAKABURA TPP	ACB (INDIA) Ltd.	Chhattisgarh	30.00	0.0000	0.0000	0.0000
8	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	Chhattisgarh	30.00	0.0000	0.0000	0.0000
9	RATIJA TPS	ACB (INDIA) Ltd.	Chhattisgarh	100.00	0.4110	0.4100	0.4110
10	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	Gujarat	4620.00	0.0443	0.0400	0.0324
11	TIRODA	ADANI POWER MAHARASHTRA LTD.	Maharashtra	3300.00	6.8922	7.6682	4.4340
12	KAWAI	ADANI POWER RAJASTHAN LTD.	Rajasthan	1320.00	0.1536	0.2578	0.1512
13	MIHAN	Abhijeet MADC Nagpur Energy Pvt. Ltd.	Maharashtra	246.00	0.0000	0.0580	0.0210
14	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	Maharashtra	500.00	2.4460	2.2210	2.1500
15	ADHUNIK POWER & NATURAL RESOURCES LTD.	Adhunik Power & Resources Ltd.	Jharkhand	540.00	0.0000	0.0000	0.1436
16	BARKHERA	Bajaj Energy Limited	Uttar Pradesh	90.00	0.0002	0.0001	0.0001
17	KHAMBHAR KHERA	Bajaj Energy Limited	Uttar Pradesh	90.00	0.0000	0.0004	0.0002
18	KUNDARKI	Bajaj Energy Limited	Uttar Pradesh	90.00	0.0002	0.0003	0.0001
19	MAQSOODAPUR	Bajaj Energy Limited	Uttar Pradesh	90.00	0.0001	0.0006	0.0002
20	UTRAULA	Bajaj Energy Limited	Uttar Pradesh	90.00	0.0001	0.0001	0.0002
21	BALCO CPP	BALCO	Chhattisgarh	540.00	10.0384	10.1412	9.8255

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
22	BALCO TPP	BALCO	Chhattisgarh	1200.00	2.6220	2.7753	1.9343
23	BHADRESHWAR VIDYUT PRIVATE LTD TPS	BHADRESHWAR VIDYUT PRIVATE LIMITED	Gujarat	300.00	0.0083	0.0046	0.0083
24	Budge Budge Generating Station	CESC Ltd.	West Bengal	750.00	0.0000	0.0000	0.0000
25	Southern Generating Station	CESC Ltd.	West Bengal	135.00	0.0000	0.0000	0.0000
26	Titagarh Generating Station	CESC Ltd.	West Bengal	240.00	0.0000	0.0000	0.0000
27	Atal Bihari Vajpayee TPP	Chhattisgarh State Power Generation Company Ltd.	Chhattisgarh	1000.00	4.1340	4.5880	4.6090
28	Dr. Shyama Prasad Mukharjee TPP	Chhattisgarh State Power Generation Company Ltd.	Chhattisgarh	500.00	18.0990	18.6276	19.0775
29	Hasdeo TPP	Chhattisgarh State Power Generation Company Ltd.	Chhattisgarh	1340.00	56.4160	57.4030	58.0946
30	MUTIARA	COASTAL ENERGEN PVT. LTD	Tamil Nadu	1200.00	0.0030	0.0030	0.0000
31	MUNDRA UMP	Coastal Gujarat Power Limited	Gujarat	4150.00	1.7600	1.7500	1.7300
32	CHEMPLAST LIMITED TPS	CHEMPLAST LIMITED	Tamil Nadu	48.50	0.0002	0.0001	0.0001
33	DB POWER	DB POWER LIMITED	Chhattisgarh	1200.00	2.3289	2.6511	1.9074
34	BOKARO	Damodar Valley Corporation	Jharkhand	500.00	0.7974	0.8700	0.8765
35	CHANDRAPURA	Damodar Valley Corporation	Jharkhand	500.00	4.2394	4.2054	4.2303
36	DURGAPUR	Damodar Valley Corporation	West Bengal	210.00	3.1280	3.1481	3.1989
37	MEJIA	Damodar Valley Corporation	West Bengal	2340.00	18.3070	18.9010	19.1520
38	DURGAPUR STEEL	Damodar Valley Corporation	West Bengal	1000.00	5.2330	5.4740	5.3060
39	KODERMA	Damodar Valley Corporation	Jharkhand	1000.00	1.1096	1.3108	2.7865
40	RAGHUNATHPUR	Damodar Valley Corporation	West Bengal	1200.00	3.7304	4.8965	5.5914
41	DHARIWAL INFRASTRUCTURE Ltd.	DHARIWAL INFRASTRUCTURE LIMITED	Maharashtra	600.00	0.0000	0.0126	0.0000
42	SALAYA TPS	ESSAR POWER GUJARAT LTD.	Gujarat	1200.00	0.0000	0.0000	0.0000



SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
43	SURAT LIGNITE	Gujarat Industries Power Company Limited	Gujarat	500.00	0.0000	0.0000	0.0000
44	AKRIMOTA	Gujarat Mineral Development Corporation Limited	Gujarat	250.00	0.0001	0.0006	0.0006
45	GANDHINAGAR	Gujarat State Electricity Corporation Limited	Gujarat	630.00	5.7000	5.2870	4.7040
46	KUTCH LIGNITE	Gujarat State Electricity Corporation Limited	Gujarat	150.00	1.2000	0.9060	0.8390
47	SIKKA	Gujarat State Electricity Corporation Limited	Gujarat	500.00	0.9600	0.8140	0.5820
48	UKAI	Gujarat State Electricity Corporation Limited	Gujarat	1110.00	13.0000	12.9980	12.9730
49	WANAKBORI	Gujarat State Electricity Corporation Limited	Gujarat	2270.00	38.1000	38.5580	38.6650
50	BHAVNAGAR LIGNITE	Gujarat State Electricity Corporation Limited	Gujarat	500.00	0.0060	0.0254	0.0000
51	GMR WARORA ENERGY LTD.	GMR WARORA ENERGY LTD.	Maharashtra	600.00	0.2630	0.2967	0.2150
52	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY LTD.	Odisha	1050.00	1.0740	0.6520	0.2970
53	RAJIV GANDHI TPP, Hissar	Haryana Power Generation Corporation Limited	Haryana	1200.00	4.8010	4.6780	4.3730
54	Deen Bandhu Chhotu Ram TPS, YAMUNANAGAR	Haryana Power Generation Corporation Limited	Haryana	600.00	1.8008	1.5790	1.2995
55	PANIPAT	Haryana Power Generation Corporation Limited	Haryana	710.00	29.9000	26.1900	22.4070
56	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	West Bengal	600.00	0.0000	0.0000	0.0000
57	HINDUJA NATIONAL POWER CORPORATION LIMITED	HINDUJA NATIONAL POWER CORPORATION LIMITED	Andhra Pradesh	1040.00	1.1945	1.1330	0.8469

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
58	DISHERGARH POWER STATION	INDIA POWER CORPORATION LTD.	West Bengal	12.00	0.0000	0.0000	0.0000
59	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS LTD.	Odisha	200.00	0.0000	0.0000	0.0000
60	IL & FS TAMIL NADU POWER COMPANY LTD.	IL & FS TAMIL NADU POWER COMPANY LIMITED	Tamil Nadu	1200.00	0.0347	0.0347	0.0347
61	BELA TPS	IDEAL ENERGY PROJECTS LIMITED	Maharashtra	270.00	0.1168	0.0584	0.0584
62	JK CAPTIVE POWER PLANT	JK CEMENT WORKS MUDDAPUR	Karnataka	50.00	0.0000	0.0000	0.0000
63	MAHATMA GANDHI TPP	JHAJJAR POWER LIMITED	Haryana	1320.00	0.0003	0.0172	0.0003
64	O.P. Jindal Super TPP (Stage-I)	JINDAL POWER LIMITED	Chhattisgarh	1000.00	10.1420	10.5140	10.4230
65	TAMNAR TPP	JINDAL POWER LIMITED	Chhattisgarh	2400.00	5.3570	5.9980	5.7270
66	JAYPEE BINA TPP	JAIPRAKSH POWER VENTURES LIMITED	Madhya Pradesh	500.00	2.0000	0.3808	2.1262
67	JAYPEE NIGRIE SUPER TPP	JAIPRAKSH POWER VENTURES LIMITED	Madhya Pradesh	1320.00	0.2185	0.5401	0.3835
68	RATNAGIRI	JSW ENERGY LIMITED	Maharashtra	1200.00	0.0479	0.0478	0.0047
69	VIJAYANAGAR	JSW ENERGY LIMITED	Karnataka	860.00	0.1197	0.1197	0.0352
70	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	Odisha	1200.00	9.1548	5.1926	5.6885
71	DONGAMAHUA CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	Chhattisgarh	576.00	0.0011	0.0012	0.0014
72	ANGUL CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	Odisha	810.00	0.4550	1.0200	1.0190
73	JSW ENERGY (BARMER) LIMITED	JSW ENERGY (BARMER) LIMITED	Rajasthan	1080.00	0.1416	0.1690	0.1920
74	JSW STEEL LIMITED CPP-II	JSW STEEL LIMITED	Tamil Nadu	90.00	0.0001	0.0001	0.0001
75	JINDAL STEEL AND POWER LIMITED (CPP)	JINDAL STEEL AND POWER LIMITED	Chhattisgarh	299.00	12.9830	13.1463	13.3020
76	JHABUA POWER LIMITED	JHABUA POWER LIMITED	Madhya Pradesh	600.00	0.8926	1.0953	1.0493
77	BALLARI	KARNATAKA POWER CORPORATION LIMITED	Karnataka	1700.00	6.2540	6.4764	6.6808

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
78	RAICHUR POWER PLANT	KARNATAKA POWER CORPORATION LIMITED	Karnataka	1720.00		39.9441	39.9775
79	KMPCL - NARIYARA	KSK MAHANADI POWER COMPANY LIMITED	Chhattisgarh	1800.00	0.4856	0.4794	0.3050
80	LANCO AMARKANTAK TPS	LANCO AMARKANTAK POWER LIMITED	Chhattisgarh	600.00	6.4730	6.5866	2.0060
81	LALITPUR	LALITPUR POWER GENERATION COMPANY LIMITED	Uttar Pradesh	1980.00	0.0719	0.1543	0.2806
82	ANPARA 'C' TPS	LANCO ANPARA POWER LIMITED	Uttar Pradesh	1200.00	13.5845	14.3329	15.0755
83	MAHAN	MAHAN ENERGEN LTD.	Madhya Pradesh	1200.00	0.5280	0.8200	1.1511
84	MAITHON RIGHT BANK TPP	MAITHON POWER LIMITED	Jharkhand	1050.00	0.0893	0.3633	0.2834
85	SANJAY GANDHI	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	1340.00	15.6467	15.7370	16.1852
86	SATPURA	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	1330.00	85.0450	85.0325	85.0465
87	AMARKANTAK	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	210.00	3.3176	3.4470	3.5357
88	SHREE SINGAJI TPS	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	2520.00	7.7184	8.3032	9.4646
89	BHUSAWAL	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	1210.00	6.7496	6.7277	6.4374
90	CHANDRAPUR	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	2920.00	77.3275	78.9750	80.9590
91	KHAPARKHEDA	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	1340.00	26.8896	27.5350	27.5813
92	KORADI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	2190.00	31.2103	31.6945	31.7685

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
93	NASHIK	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	630.00	10.3792	9.0009	5.6844
94	PARLI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	750.00	20.4196	0.0000	2.1252
95	PARAS	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	500.00	1.7653	1.6290	1.3596
96	MCCPL BANDHAKHAR	MARUTI CLEAN COAL AND POWER LIMITED	Chhattisgarh	300.00	0.3286	0.3286	0.3286
97	SAI WARDHA POWER Ltd., WARORA	SAI WARDHA POWER GENERATION PVT LTD.	Maharashtra	540.00	0.0000	0.0000	0.0000
98	MEENAKSHI ENERGY LIMITED	MEENAKSHI ENERGY LIMITED	Andhra Pradesh	300.00	0.0000	0.0213	0.0213
99	ANUPPUR TPS	MB POWER (MADHYA PRADESH) LIMITED	Madhya Pradesh	1200.00	1.4233	1.4209	1.4188
100	NEYVELI - I EXPN	NLC INDIA LIMITED	Tamil Nadu	420.00	0.0000	0.0000	0.0000
101	NEYVELI - II	NLC INDIA LIMITED	Tamil Nadu	1470.00	8.1900	7.3570	7.2453
102	NEYVELI - II EXPN	NLC INDIA LIMITED	Tamil Nadu	500.00	0.0000	0.0030	0.0550
103	NEYVELI NEW THERMAL POWER STATION	NLC INDIA LIMITED	Tamil Nadu	1000.00	0.0000	0.0000	0.0000
104	BARSINGSAR LIGNITE	NLC INDIA LIMITED	Rajasthan	250.00	0.0000	0.0000	0.0000
105	NLC TAMILNADU POWER Ltd	NLC TAMIL NADU POWER LIMITED	Tamil Nadu	1000.00	0.0000	0.0005	0.0000
106	SINGRAULI	NTPC LTD.	Uttar Pradesh	2000.00	75.6100	76.7600	76.9833
107	KORBA SUPER	NTPC LTD.	Chhattisgarh	2600.00	53.5900	54.5440	55.8660
108	RAMAGUNDAM SUPER	NTPC LTD.	Telangana	2600.00	69.2280	69.1400	67.6162
109	FARAKKA SUPER	NTPC LTD.	West Bengal	2100.00	39.2847	38.8387	38.2537
110	VINDHYACHAL	NTPC LTD.	Madhya Pradesh	4760.00	80.1700	82.6340	84.0428
111	RIHAND	NTPC LTD.	Uttar Pradesh	3000.00	38.6310	39.7329	40.1388
112	KAHALGAON SUPER	NTPC LTD.	Bihar	2340.00	66.5000	58.1000	67.4036
113	DADRI	NTPC LTD.	Uttar Pradesh	1820.00	0.0185	0.0080	0.0000
114	TALCHER - KANIHA	NTPC LTD.	Odisha	3000.00	88.0565	89.4240	91.1972

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
115	FEROZE GANDHI UNCHA HAR	NTPC LTD.	Uttar Pradesh	1550.00	7.2040	6.8510	5.9700
116	SIMHADRI SUPER	NTPC LTD.	Andhra Pradesh	2000.00	15.1500	2.0960	15.5250
117	TANDA	NTPC LTD.	Uttar Pradesh	1760.00	3.5826	3.4771	2.7800
118	SIPAT SUPER	NTPC LTD.	Chhattisgarh	2980.00	37.2840	39.2765	39.3894
119	MOUDA SUPER TPS	NTPC LTD.	Maharashtra	2320.00	1.0400	1.1050	0.6590
120	BARH SUPER TPS	NTPC LTD.	Bihar	1980.00	6.2111	6.1875	4.9530
121	BONGAIGAON	NTPC LTD.	Assam	750.00	1.3583	1.5100	1.6560
122	KUDGI	NTPC LTD.	Karnataka	2400.00	1.3529	1.4732	1.9701
123	SOLAPUR SUPER TPS	NTPC LTD.	Maharashtra	1320.00	0.0150	0.0400	0.2920
124	LARA SUPER TPS	NTPC LTD.	Chhattisgarh	1600.00	0.9134	1.9316	2.3220
125	BARAUNI	NTPC LTD.	Bihar	610.00	0.1957	0.2150	0.2925
126	GADARWARA SUPER	NTPC LTD.	Madhya Pradesh	1600.00	1.1543	1.9580	2.2040
127	KHARGONE SUPER THERMAL POWER STATION	NTPC LTD.	Madhya Pradesh	1320.00	0.5479	0.8180	1.1140
128	DARLIPALI SUPER TPS	NTPC LTD.	Odisha	1600.00	1.4014	2.4540	2.8920
129	DURGAPUR CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	West Bengal	120.00	4.1177	4.1834	4.1050
130	ROURKELA CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	Odisha	120.00	1.8200	1.8196	1.7594
131	BHILAI PP-II	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	Chhattisgarh	74.00	0.9225	0.9341	0.9955
132	BHILAI PP - III	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	Chhattisgarh	500.00	3.6705	3.9556	4.1536
133	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC-JV)	Bihar	610.00	1.9440	1.8020	1.0130
134	INDIRA GANDHI	ARAVALI POWER CORPORATION PVT LTD (NTPC-JV)	Haryana	1500.00	4.0413	4.0900	3.0560
135	VALLUR	NTPC TAMILNADU ENERGY COMPANY LTD (NTECL) (NTPC-JV)	Tamil Nadu	1500.00	3.6470	3.6470	4.1830

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
136	NABINAGAR- BRBCL	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	Bihar	1000.00	1.6436	2.0858	2.3460
137	MEJA TPP	MEJA URJA NIGAM PRIVATE LIMITED (NTPC-JV)	Uttar Pradesh	1320.00	0.6972	1.0231	1.1940
138	NABINAGAR-NPGC	NPGC (NTPC-JV)	Bihar	1320.00	0.8173	1.1418	1.6801
139	RAJPURA TPS	NABHA POWER LIMITED	Punjab	1400.00	0.0140	0.0040	0.0130
140	NALCO, CPP ANGUL	NATIONAL ALUMINIUM COMPANY LIMITED	Odisha	1200.00	18.7750	19.1590	19.1620
141	IB VALLEY	ODISHA POWER GENERATION CORPORATION LIMITED	Odisha	1740.00	23.6780	25.1270	26.2823
142	OPG POWER GENERATION PRIVATE LIMITED	OPG POWER GENERATION PRIVATE LIMITED	Tamil Nadu	414.00	0.0000	0.0000	0.0000
143	GURU NANAKDEV TPS, BATHINDA	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	460.00	20.6786	20.5217	20.3645
144	GURU HARGOBIND TPP, LEHRA MOHABAT	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	920.00	6.6315	6.7080	6.7780
145	GURU GOBIND SINGH TPP, ROPAR	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	840.00	20.6207	20.1531	19.6012
146	GVK POWER (GOINDWALSAHIB) LTD.	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	540.00	0.3320	0.4030	0.4264
147	PRAYAGRAJ TPS	PRAYAGRAJ POWER GENERATION COMPANY LTD.	Uttar Pradesh	1980.00	1.9572	2.3293	2.2690
148	R.K.M. POWERGEN PVT. LTD	R.K.M. POWERGEN PVT. LTD	Chhattisgarh	1440.00	0.0000	0.0000	1.1840
149	CHHABRA	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1000.00	0.4386	0.5813	0.7787
150	CHHABRA SUPER CRITICAL TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1320.00	1.5594	1.7061	1.7363
151	SURATGARH	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1500.00	7.8970	7.2296	7.2300

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
152	KALISINDH SUPER TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1200.00	0.0544	0.1406	0.0361
153	KOTA SUPER THERMAL POWER STATION	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1240.00	1.0006	0.9760	0.7928
154	GIRAL TPS	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	250.00	0.0000	0.0000	0.0000
155	ROSA TPP	ROSA POWER SUPPLY COMPANY LIMITED	Uttar Pradesh	1200.00	1.0054	1.1540	1.2847
156	AMARAVATI TPS	RATTANINDIA POWER LTD.	Maharashtra	1350.00	0.6704	1.3837	0.4501
157	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	Karnataka	1600.00	0.0036	0.7773	0.8857
158	RINL CAPTIVE TPP	RASHTRIYA ISPAT NIGAM LIMITED	Andhra Pradesh	315.00	0.7100	7.0028	7.1493
159	RAIGARH TPP	RAIGARH ENERGY GENERATION LIMITED	Chhattisgarh	600.00	1.5320	1.9070	1.9070
160	RAIPUR TPP	RAIPUR ENERGEN LIMITED	Chhattisgarh	1370.00	0.1275	1.8487	0.1605
161	SASAN UMPP TPP	RELIANCE POWER LIMITED	Madhya Pradesh	3960.00	22.1585	22.8793	24.7066
162	SAI LILAGAR POWER GENERATION LTD.	SAI LILAGAR POWER GENERATION LIMITED	Chhattisgarh	86.00	0.0000	0.0000	0.0000
163	SEBFCORP ENERGY INDIA LTD.	SEBFCORP ENERGY INDIA LTD.	Andhra Pradesh	1320.00	2.8320	2.8320	2.8320
164	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	Chhattisgarh	25.00	0.0000	0.0000	0.0000
165	SKS POWER GENERATION (CH) LTD.	SKS POWER GENERATION (CHHATTISGARH) LIMITED	Chhattisgarh	600.00	0.3840	0.3950	0.4100
166	THE DURGAPUR PROJECTS POWER STATION	THE DURGAPUR PROJECTS LIMITED	West Bengal	550.00	0.7675	0.8392	1.0084
167	SINGARENI TPP	THE SINGARENI COLLIERIES COMPANY LIMITED	Telangana	1200.00	0.4000	0.3760	0.1000
168	CUDDALORE - TAQA	TAQA NEYVELLY POWER CO.PVT. LTD.	Tamil Nadu	250.00	0.2450	0.1572	0.2535
169	JOJOBERA	THE TATA POWER COMPANY LIMITED	Jharkhand	547.50	0.0447	0.4836	0.4369

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
170	TROMBAY	THE TATA POWER COMPANY LIMITED	Maharashtra	750.00	0.0000	0.0028	0.0000
171	SABARMATI TPS	TORRENT POWER LTD.	Gujarat	362.00	1.0033	1.0536	0.9482
172	TUTICORIN	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	1050.00	40.9380	41.1820	41.8104
173	METTUR-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	840.00	18.7484	18.8055	18.7283
174	METTUR-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	600.00	0.0000	0.0000	0.0014
175	NORTH CHENNAI-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	630.00	11.4960	5.7769	0.7177
176	NORTH CHENNAI-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	1200.00	6.3690	0.8439	0.8477
177	RAMAGUNDAM 'B'	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	62.50	0.8870	0.8810	0.7457
178	KOTHAGUDEM-V	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	500.00	77.7000	78.0940	78.4360
179	KOTHAGUDEM-VI	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	500.00	0.0000	0.0000	
180	KOTHAGUDEM-VII	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	800.00	1.1746	1.4696	1.6026
181	KAKATIYA (Stage-I)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	500.00	3.4720	3.4720	2.1895
182	KAKATIYA (Stage-II)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	600.00	1.1040	1.1040	2.6275



SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
183	RAIGARH TPP	TRN ENERGY PRIVATE LIMITED	Chhattisgarh	600.00	1.3643	1.4131	1.4098
184	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	Jharkhand	420.00	0.0000	0.0291	0.0000
185	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.	Punjab	1980.00	3.2670	3.1153	3.4923
186	ANPARA 'A' & 'B'	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	2630.00	57.3283	59.0200	61.2163
187	HARDUAGANJ	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	1270.00	7.7542	7.7308	7.1150
188	OBRA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	1000.00	12.8651	13.5390	14.1600
189	PARICHHA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	920.00	8.5667	8.8198	8.9275
190	UDUPI	UDUPI POWER CORPORATION LIMITED	Karnataka	1200.00	0.0327	0.0356	0.0303
191	BUTIBORI	VIDARBHA INDUSTRIES POWER LTD.	Maharashtra	600.00	0.0000	0.0000	0.0000
192	VS LIGNITE POWER PRIVATE LTD	VS LIGNITE POWER PRIVATE LIMITED	Rajasthan	135.00	0.0000	0.0000	0.0000
193	VEDANTA LTD TPP	VEDANTA LIMITED	Odisha	2400.00	5.6000	6.5300	4.7244
194	VEDANTA LTD CPP	VEDANTA LIMITED	Odisha	1215.00	9.2000	6.2200	5.3262
195	KOLAGHAT	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1260.00	0.0111	1.1723	1.0625
196	SAGARDIGHI	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1600.00	7.4166	7.7054	7.8989
197	BANDEL	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	335.00	0.1958	0.2420	0.1289

SI No.	Name of TPS	Power Utility	State	Installed Capacity	Ash Stock as on 31.3.2021	Ash stock as on 30.9.2021	Ash stock as on 31.3.2022
				(Mega Watts)	Million Tonnes	Million Tonnes	Million Tonnes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
198	SANTALDIH TPS	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	500.00	3.8047	3.6511	3.9321
199	BAKRESWAR	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1050.00	8.5700	9.1784	9.6410
200	SITAPURAM TPS	ZUARI CEMENT LIMITED	Telangana	43.00	0.0000	0.0000	0.0000
			TOTAL	213620.50	1701.9805	1718.2580	1734.0172

From the above table it may be seen that a total of 1734.02 Million Tonnes of Legacy Ash is available as reported by 200 Thermal Power Plants as on 31.03.2022.

## **10.0 WEB BASED MONITORING SYSTEM AND A MOBILE APPLICATION FOR UTILIZATION OF FLY ASH:**

Annual Fly ash utilization has remained 95.95 % of the fly ash generated and therefore, it has become a matter of concern because of its environmental effect. Besides, progressive accumulation may lead to a situation when ash pond may not be in a position to accommodate fly ash further.

Due to the importance of utilization of fly ash & slag for reducing the burden on the environment, NITI AAYOG convened several meetings on policy framework on utilization of fly ash and slag. In a meeting held on 17.03.2017, it was decided by NITI AAYOG that an online repository of the fly ash generated by thermal power plants indicating the following parameters should be launched by Ministry of Power by 15<sup>th</sup> April, 2017:

- Cumulative amount of fly ash available in the ash ponds as on 31.03.2017
- Quantum of fly ash generated for the respective month (Ex. For the month of April 2017)
- Number of ash ponds available and their approved capacity in metric tonnes
- Cumulative stock of fly ash available in the ponds for the month as on 30th April 2017
- Total quantum of fly ash disposed to the consuming industries, which is located within the vicinity of 100 Kms., 101-300 Kms., etc. along with the details of the consumers. In this detail, it should also be indicated whether the transportation was paid by the thermal power or not. Similarly, it should also indicate whether fly ash has been given free or it has been charged. If it has been charged then the rate should also be indicated for each consumer
- Balance stock of fly ash available in the ash ponds for the month ending April,2017

Accordingly, a web-based monitoring system and a mobile application (ASH TRACK) was developed by CEA in collaboration with M/s NTPC Limited. Login ID and password have been issued to those Power Utilities / Thermal Power Stations for uploading the monthly data of fly ash generation and its utilization.

## **11.0 RECOMMENDATIONS OF THE EXPERT COMMITTEE**

NITI Aayog vide O.M. No. 25(11)/2014-Minerals dated 12.06.2018 has constituted an Expert Committee under the chairmanship of Joint Secretary, MoEF & CC and represented by various concerned Ministries for developing a focus strategy for best utilization of fly ash to manufacture end products.

Expert Committee held two meetings on 5<sup>th</sup> September and 1<sup>st</sup> October 2018 and finalized its recommendations. An inter-ministerial consultation meeting was also held on 21<sup>st</sup> January 2018 under the chairmanship of Secretary, MoEF&CC to review the recommendations of the Expert Committee for effective utilization of fly ash, wherein the recommendations of the Committee were accepted.

The expert Committee had recommended the following recommendations for implementation by all Thermal Power Plants for effective utilization of fly ash:

- i. Tender / auction for the sale of fly ash should be done by TPPs initially for end-user / industry and not for traders. If fly ash is not taken by end-user / industry, then it could be

given to traders. TPPs should also consider entering into longer-term contracts with end-users.

- ii. TPPs may explore the possibility that once a tender for utilization of fly ash is allotted to a company, any unit / plant of the same company should be allowed to purchase and utilize the fly ash and TPPs can also directly raised the invoice to such Unit / Plant.
- iii. Creation of fly ash parks / hubs on public-private-partnership mode. Such parks will act as facilities for enabling quality control of fly ash made ash-made products, generate employment and act as models which will promote the use of innovative fly ash products that can be replicated at other locations.
- iv. TPPs should give incentive to entities which can (through R&D) come up with fly ash products with ash content of at least 75% and established sustainable application of those fly ash products in the industry. The incentive could be given from the money available with the TPPs from auctioning of fly ash.
- v. Ministry of Power should come up with Awards / Incentives for TPPs that innovate new methodology in fly ash disposal keeping all the environment and pollution norms in Consideration.

## **12.0 CONCLUSIONS & RECOMMENDATIONS:**

1. The fly ash generation during 2021-22 was 270.82 Million Tonnes due to a combustion of 759.02 Million Tonnes of Coal / Lignite. During 2020-21, 232.56 Million Tonnes of fly ash was generated due to combustion of 686.34 Million Tonnes of coal / lignite. However, the fly ash utilization during 2020-21 and 2021-22 were 214.91 Million Tonnes and 259.86 Million Tonnes, respectively. It is seen that the absolute quantity of fly ash utilization has increased as compared to last year and similarly the percentage utilization of fly ash has also increased.
2. The highest level of fly ash utilization of about 95.95 % is achieved during the year 2021-22. It would require a lot of efforts to achieve the target of 100 % utilization of fly ash. The stipulations of notification of 2009 and the subsequent amendments should be effectively implemented. About 4.05 % un-utilized fly ash was dumped at the various Thermal Power Stations in the country during 2021-22.
3. 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 Stations need to include the technological advancement required to ensure the 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.
  - As per MoEF& CC's Amendment Notification dated 25.01.2016, Para 2 (14) "The coal or lignite based thermal power plants shall within a radius of three hundred kilometres bear the entire cost of transportation of ash to the site of road construction projects under Pradhan Mantri Gramin Sadak Yojana and asset creation programmes of the Government involving the construction of buildings, roads, dams, and embankments". The meaning of the words "Asset Creation Programme of the Government" may be read in the context of projects carried out under a certain plan schemes of the Government Departments. In this regard, the Ministry of Environment, Forest, and

climate change (MoEF & CC) has clarified that road being constructed by NHAI as well as the State Government are covered by the Notification dated 25.01.2016 in order to fully utilize the fly ash.

- 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 the 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 RDSO, a research organization under the Ministry of Railways.
- Thermal Power Stations have to 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.
- A large number of technologies have been developed for gainful utilization and safe management of fly ash through research projects funded by Fly Ash Mission / Fly Ash Unit under the Ministry of Science & Technology, Govt since 1994. Propagation of these technologies by establishing 'Self-sustaining technology demonstration centers would facilitate and accelerate the fly ash utilization in the country.
- Thermal Power Stations have to 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's notifications.
- There is a need to encourage 'Industry Institute Interactions' for entrepreneur development, creating awareness, and organizing training programmes and workshops.
- Induction of 'Fly Ash' as a subject in the academic curriculum of Engineering and Architecture is needed.

\*\*\*

## 13.0 Abbreviations

CEA	:	Central Electricity Authority
MoEF	:	Ministry of Environment & Forest
MoEF&CC	:	Ministry of Environment & Forest and Climate Change
MW	:	Mega Watt
MoP	:	Ministry of Power
MT	:	Million Tonnes
TPS	:	Thermal Power Stations
APGENCO	:	Andhra Pradesh Power Generation Corporation Ltd.
APPDCL	:	Andhra Pradesh Power Distribution Company Limited
ACBPL	:	Aryan Coal Beneficiation Private Ltd.
APL	:	Adani Power Ltd.,
APCPL	:	Aravali Power Corporation Pvt. Ltd.
AMNEPL	:	Abhijet MADC Nagpur energy Pvt. Ltd.
BEPL	:	Bajaj Energy Pvt. Ltd.
BSPGC	:	Bihar State Power Generation Company
CESC	:	Calcutta Electric Supply Company
CGPL	:	Coastal Gujarat Power Ltd.
CSPGCL	:	Chhattisgarh State Power Generation Company Ltd.
DVC	:	Damodar Valley Corporation
DPL	:	Durgapur Project Ltd.
DPSC	:	Dishergarh Power Supply Company Ltd.
EPGL	:	Essar Power Gujarat Ltd.
GIPCL	:	Gujarat Industries Power Corporation Ltd.
GMDCL	:	Gujarat Mineral Development Corporation Ltd.
GSECL	:	Gujarat State Electric Corporation Ltd.
HPGCL	:	Haryana Power generating company Ltd.
IPGCL	:	Indraprastha Power Generation Company Ltd.
IPCL	:	IL&FS Tamil Nadu Power Company Ltd.
JSEB	:	Jharkhand State Electricity Board.
JHPL	:	Jhajjar Power Ltd.
JPL	:	Jindal Power Ltd.
JSW	:	Jindal Steel Works
KPCL	:	Karnataka Power Corporation Ltd.

<b>KBUNL</b>	<b>:</b>	<b>Kanti Bijlee Utpadan Nigam Ltd.</b>
<b>MPPGCL</b>	<b>:</b>	<b>Madhya Pradesh Power Generating Company Ltd.</b>
<b>MPL</b>	<b>:</b>	<b>Maithon Power Ltd.</b>
<b>MSPGCL</b>	<b>:</b>	<b>Maharashtra State Power Generating Company Ltd.</b>
<b>NLC</b>	<b>:</b>	<b>Neyveli Lignite Corporation</b>
<b>NSPCL</b>	<b>:</b>	<b>NTPC -SAIL Power Corporation Ltd.</b>
<b>NTPC</b>	<b>:</b>	<b>National thermal Power Corporation</b>
<b>NTECL</b>	<b>:</b>	<b>NTPC – Tamil Nadu Electric Company Ltd.</b>
<b>OPGCL</b>	<b>:</b>	<b>Odisha Power Generation Corporation Ltd.</b>
<b>PSPCL</b>	<b>:</b>	<b>Punjab State Power Corporation Ltd.</b>
<b>RRVUNL</b>	<b>:</b>	<b>Rajasthan Rajya Vidyut Utpadan Nigam Ltd.</b>
<b>RIL</b>	<b>:</b>	<b>Reliance Infrastructure Ltd.</b>
<b>RPSCL</b>	<b>:</b>	<b>Rosa Power Supply Company Ltd.</b>
<b>RWPL</b>	<b>:</b>	<b>Raj West Power Ltd.</b>
<b>SEL</b>	<b>:</b>	<b>Sterlite energy Ltd.</b>
<b>SVPPPL</b>	<b>:</b>	<b>Shri Vardhman Power Pvt. Ltd.</b>
<b>ST-CMS</b>	<b>:</b>	<b>ST-CMS</b>
<b>TPCO</b>	<b>:</b>	<b>Tata Power Company Ltd.</b>
<b>TVNL</b>	<b>:</b>	<b>Tenughat Vidyut Nigam Ltd.</b>
<b>TNG&amp;D</b>	<b>:</b>	<b>Tamil Nadu Generating and Distribution Corporation Ltd.</b>
<b>UPCI</b>	<b>:</b>	<b>Udupi Power Company Ltd.</b>
<b>UPRVUNL</b>	<b>:</b>	<b>Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd.</b>
<b>VESPL</b>	<b>:</b>	<b>Vandanca Energy Supply Power Ltd.</b>
<b>WBPDCCL</b>	<b>:</b>	<b>West Bengal Power Development Corporation Ltd.</b>
<b>WPCL</b>	<b>:</b>	<b>Wardha Power Company Ltd.</b>
<b>GEPL</b>	<b>:</b>	<b>Gupta Power Company Ltd.</b>
<b>VIP</b>	<b>:</b>	<b>Vidarbha Industries Power Ltd.</b>
<b>EPL</b>	<b>:</b>	<b>Essar Power Ltd.</b>
<b>ACB</b>	<b>:</b>	<b>Aryan Coal Beneficiary Ltd.</b>
<b>AP</b>	<b>:</b>	<b>Andhra Pradesh</b>
<b>MP</b>	<b>:</b>	<b>Madhya Pradesh</b>
<b>TN</b>	<b>:</b>	<b>Tamil Nadu</b>
<b>UP</b>	<b>:</b>	<b>Uttar Pradesh</b>
<b>WB</b>	<b>:</b>	<b>West Bengal</b>

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization			
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(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	1	AARTI STEELS LIMITED	AARTI STEELS LIMITED	ODISHA	80.00	0.4743	55.08	0.2612	0.2612	100.00	0.2026	0.0271	0.0007	0.0000	0.0000	0.0041	0.0268	0.0000	0.0000	0.0000	0.0000	0.2612		
2	2	Dr. N.T.R TPS	APGENCO	Andhra Pradesh	1760.00	9.1956	45.27	4.1629	4.1664	100.08	2.0266	1.4276	0.5112	0.0469	0.0000	0.0000	0.0032	0.0000	0.0000	0.1509	4.1664			
3	3	RAYALSEEMA	APGENCO	Andhra Pradesh	1650.00	5.1228	41.78	2.1404	1.5652	73.12	0.3190	1.2462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5652			
4	4	SRI DAMODARAM SANJEEVAIAH	Andhra Pradesh Power Development Company Limited	Andhra Pradesh	1600.00	3.6194	34.06	1.2329	0.8031	65.14	0.2519	0.4394	0.0765	0.0000	0.0000	0.0000	0.0353	0.0000	0.0000	0.0000	0.8031			
5	5	KASAIPALI	ACB (INDIA) Ltd.	Chhattisgarh	270.00	1.5530	56.67	0.8801	0.8799	99.98	0.0601	0.0000	0.4822	0.0000	0.0000	0.0000	0.3376	0.0000	0.0000	0.0000	0.8799			
6	6	SVPLP Renki	ACB (INDIA) Ltd.	Chhattisgarh	60.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
7	7	CHAKABURA TPP	ACB (INDIA) Ltd.	Chhattisgarh	30.00	0.1458	60.41	0.0881	0.0881	100.00	0.0062	0.0000	0.0641	0.0000	0.0000	0.0000	0.0178	0.0000	0.0000	0.0000	0.0881			
8	8	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	Chhattisgarh	30.00	0.1486	60.23	0.0895	0.0895	100.00	0.0067	0.0000	0.0656	0.0000	0.0000	0.0000	0.0172	0.0000	0.0000	0.0000	0.0895			
9	9	RATIJA TPS	ACB (INDIA) Ltd.	Chhattisgarh	100.00	0.8169	55.80	0.4558	0.4558	100.00	0.0149	0.0000	0.2658	0.0000	0.0000	0.0000	0.1752	0.0000	0.0000	0.0000	0.4558			
11	10	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	Gujarat	4620.00	6.5830	5.24	0.3448	0.3566	103.41	0.0000	0.2279	0.0159	0.0000	0.0000	0.0000	0.0193	0.0000	0.0000	0.0935	0.3566			
12	11	TIRODA	ADANI POWER MAHARASHTRA LTD.	Maharashtra	3300.00	14.1826	32.05	4.5451	3.5557	78.23	0.2627	1.2381	0.1244	0.0000	0.0000	0.0000	1.8199	0.1015	0.0012	0.0079	3.5557			
13	12	KAWAI	ADANI POWER RAJASTHAN LTD.	Rajasthan	1320.00	4.8560	32.18	1.5625	1.5648	100.15	0.3637	1.0225	0.0000	0.0000	0.0000	0.0000	0.1786	0.0000	0.0000	0.0000	1.5648			
14	13	MIHAN	Abhijeet MADC Nagpur Energy Pvt. Ltd.	Maharashtra	246.00	0.0000	-	0.0000	0.0370	-	0.0000	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0370			
15	14	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	Maharashtra	500.00	1.9890	31.91	0.6346	0.6710	105.74	0.0000	0.0000	0.0000	0.3704	0.0000	0.0000	0.0000	0.0000	0.0000	0.3007	0.6710			
16	15	ADHUNIK POWER & NATURAL RESOURCES LTD.	ADHUNIK POWER & NATURAL RESOURCES LTD.	Jharkhand	540.00	2.5476	43.96	1.1199	0.9762	87.17	0.0687	0.5773	0.0000	0.0387	0.0000	0.0000	0.2915	0.0000	0.0000	0.0000	0.9762			
17	16	BARKHERA	Bajaj Energy Limited	Uttar Pradesh	90.00	0.1599	35.38	0.0566	0.0567	100.20	0.0052	0.0507	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000	0.0000	0.0000	0.0567			
18	17	KHAMBAR KHERA	Bajaj Energy Limited	Uttar Pradesh	90.00	0.1588	32.58	0.0517	0.0517	99.93	0.0059	0.0435	0.0000	0.0000	0.0000	0.0000	0.0023	0.0000	0.0000	0.0000	0.0517			
19	18	KUNDARKI	Bajaj Energy Limited	Uttar Pradesh	90.00	0.2127	34.83	0.0741	0.0742	100.11	0.0074	0.0625	0.0000	0.0000	0.0000	0.0000	0.0043	0.0000	0.0000	0.0000	0.0742			
20	19	MAQSODAPUR	Bajaj Energy Limited	Uttar Pradesh	90.00	0.1565	34.86	0.0545	0.0545	99.90	0.0045	0.0499	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0545			
21	20	UTRAULA	Bajaj Energy Limited	Uttar Pradesh	90.00	0.1891	33.60	0.0635	0.0634	99.80	0.0067	0.0567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0634			
23	21	BALCO CPP	BALCO	Chhattisgarh	540.00	2.4532	40.55	0.9948	1.2077	121.40	0.0246	0.0303	0.1499	0.0000	0.0000	0.0000	0.9096	0.0000	0.0000	0.0933	1.2077			
24	22	BALCO TPP	BALCO	Chhattisgarh	1200.00	5.3075	40.32	2.1398	2.8268	132.11	0.0560	0.0573	0.3857	0.0000	0.0000	0.0000	2.1038	0.0000	0.0000	0.2240	2.8268			
25	23	BHADRESHWAR VIDYUT PRIVATE LTD TPS	BHADRESHWAR VIDYUT PRIVATE LIMITED	Gujarat	300.00	0.3138	6.84	0.0215	0.0215	100.41	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0215	0.0215			
26	24	Budge Budge Generating Station	CESC Ltd.	West Bengal	750.00	3.2350	33.44	1.0818	1.0818	100.00	0.0413	0.8898	0.0000	0.0000	0.0000	0.0000	0.1506	0.0000	0.0000	0.0000	1.0818			
27	25	Southern Generating Station	CESC Ltd.	West Bengal	135.00	0.1312	24.16	0.0317	0.0317	100.00	0.0029	0.0245	0.0000	0.0001	0.0000	0.0000	0.0042	0.0000	0.0000	0.0000	0.0317			
28	26	Titagarh Generating Station	CESC Ltd.	West Bengal	240.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
29	27	Atal Bihari Vajpayee TPP	Chattisgarh State Power Generation Company Ltd.	Chhattisgarh	1000.00	3.5722	42.37	1.5134	1.0379	68.58	0.0922	0.0187	0.4220	0.0000	0.0000	0.0000	0.5051	0.0000	0.0000	0.0000	1.0379			
30	28	Dr. Shyama Prasad Mukharjee TPP	Chattisgarh State Power Generation Company Ltd.	Chhattisgarh	500.00	2.8052	43.81	1.2289	0.2581	21.00	0.0000	0.0000	0.0042	0.0000	0.0000	0.0820	0.1395	0.0325	0.0000	0.0000	0.2581			



## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization	
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
31	29	Hasdeo TPP	Chhattisgarh State Power Generation Company Ltd.	Chhattisgarh	1340.00	6.7233	42.32	2.8455	1.1676	41.03	0.0368	0.0000	0.1287	0.0004	0.0000	0.3863	0.4558	0.1595	0.0000	0.0000	0.0000	1.1676
33	30	MUTIARA	COASTAL ENERGEN PVT. LTD	Tamil Nadu	1200.00	0.8012	8.41	0.0674	0.0704	104.47	0.0437	0.0148	0.0000	0.0000	0.0000	0.0000	0.0119	0.0000	0.0000	0.0000	0.0000	0.0704
34	31	MUNDRA UMPP	Coastal Gujarat Power Limited	Gujarat	4150.00	0.3700	9.73	0.0360	0.0420	116.67	0.0001	0.0234	0.0085	0.0064	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0036	0.0420
35	32	CHEMPLAST LIMITED TPS	CHEMPLAST LIMITED	Tamil Nadu	48.50	0.2396	8.00	0.0192	0.0192	100.26	0.0192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0192
36	33	DB POWER	DB POWER LIMITED	Chhattisgarh	1200.00	6.4731	46.11	2.9851	3.4076	114.15	0.0230	0.5666	0.0000	0.0000	0.0000	0.0000	0.5476	2.2703	0.0000	0.0000	0.0000	3.4076
37	34	BOKARO	Damodar Valley Corporation	Jharkhand	500.00	1.7299	43.68	0.7555	0.6764	89.53	0.0003	0.1065	0.1625	0.0000	0.0000	0.0000	0.4071	0.0000	0.0000	0.0000	0.0000	0.6764
38	35	CHANDRAPURA	Damodar Valley Corporation	Jharkhand	500.00	2.3490	45.02	1.0576	1.0702	101.19	0.0041	0.3638	0.5796	0.0000	0.000	0.0000	0.0169	0.1057	0.0000	0.0000	0.0000	1.0702
39	36	DURGAPUR	Damodar Valley Corporation	West Bengal	210.00	0.2507	51.25	0.1285	0.0579	45.03	0.0000	0.0044	0.0000	0.0000	0.0000	0.0000	0.0535	0.0000	0.0000	0.0000	0.0000	0.0579
40	37	MEJIA	Damodar Valley Corporation	West Bengal	2340.00	9.6699	49.35	4.7724	3.9267	82.28	0.2149	1.2928	0.0000	0.0000	0.0000	0.0000	0.0000	2.4190	0.0000	0.0000	0.0000	3.9267
41	38	DURGAPUR STEEL	Damodar Valley Corporation	West Bengal	1000.00	4.1214	46.57	1.9194	1.8460	96.17	0.2927	0.5854	0.0609	0.0000	0.0000	0.0000	0.8899	0.0171	0.0000	0.0000	0.0000	1.8460
42	39	KODERMA	Damodar Valley Corporation	Jharkhand	1000.00	4.2420	46.35	1.9661	1.8303	93.09	0.0044	0.3178	0.3860	0.0000	0.0000	0.0000	0.3211	0.8009	0.0000	0.0000	0.0000	1.8303
43	40	RAGHUNATHPUR	Damodar Valley Corporation	West Bengal	1200.00	3.9377	46.44	1.8285	0.1231	6.73	0.0082	0.1150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1231
45	41	DHARIWAL INFRASTRUCTURE Ltd.	DHARIWAL INFRASTRUCTURE LIMITED	Maharashtra	600.00	2.7210	34.96	0.9511	0.9511	100.00	0.0811	0.8381	0.0013	0.0000	0.0000	0.0000	0.0148	0.0158	0.0000	0.0000	0.0000	0.9511
48	42	SALAYA TPS	ESSAR POWER GUJARAT LTD.	Gujarat	1200.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
49	43	SURAT LIGNITE	Gujarat Industries Power Company Limited	Gujarat	500.00	3.1951	14.77	0.4719	0.4719	100.00	0.4256	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0463	0.4719
50	44	AKRIMOTA	Gujarat Mineral Development Corporation Limited	Gujarat	250.00	0.5752	20.13	0.1158	0.2246	193.91	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2246	0.0000	0.0000	0.0000	0.2246
51	45	GANDHINAGAR	Gujarat State Electricity Corporation Limited	Gujarat	630.00	2.2187	34.07	0.7560	1.7979	237.82	0.4897	1.1012	0.1204	0.0866	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7979
52	46	KUTCH LIGNITE	Gujarat State Electricity Corporation Limited	Gujarat	150.00	0.6692	27.17	0.1818	0.3085	169.69	0.0000	0.1267	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1818	0.0000	0.0000	0.3085
53	47	SIKKA	Gujarat State Electricity Corporation Limited	Gujarat	500.00	0.4674	9.22	0.0431	0.4209	976.57	0.3010	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4209
54	48	UKAI	Gujarat State Electricity Corporation Limited	Gujarat	1110.00	3.4334	36.52	1.2540	1.2358	98.55	0.5946	0.3342	0.0000	0.0060	0.0000	0.0000	0.0000	0.0000	0.0090	0.0000	0.2920	1.2358
55	49	WANAKBORI	Gujarat State Electricity Corporation Limited	Gujarat	2270.00	7.5827	36.28	2.7509	2.2155	80.54	0.1840	1.1412	0.0000	0.0000	0.0000	0.0000	0.0000	0.3740	0.0000	0.5163	2.2155	
56	50	BHAVNAGAR LIGNITE	Gujarat State Electricity Corporation Limited	Gujarat	500.00	1.7861	10.53	0.1880	0.1935	102.93	0.0951	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0984	0.0000	0.0000	0.1935
57	51	GMR WARORA ENERGY LTD.	GMR WARORA ENERGY LTD.	Maharashtra	600.00	2.3192	35.39	0.8208	1.0294	125.41	0.3165	0.2103	0.5025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0294
58	52	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY LTD.	Odisha	1050.00	5.4578	42.58	2.3240	3.1018	133.47	0.8172	0.0706	2.1918	0.0000	0.0000	0.0000	0.0222	0.0000	0.0000	0.0000	0.0000	3.1018
60	53	RAJIV GANDHI TPP, Hissar	Haryana Power Generation Corporation Limited	Haryana	1200.00	1.8506	39.01	0.7219	1.1491	159.18	0.0715	0.3769	0.7007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1491
61	54	Deen Bandhu Chhotu Ram TPS, YAMUNANAGAR	Haryana Power Generation Corporation Limited	Haryana	600.00	1.8405	42.22	0.7770	1.2766	164.29	0.0969	0.4478	0.0014	0.0000	0.0000	0.0000	0.6963	0.0000	0.0000	0.0342	1.2766	
62	55	PANIPAT	Haryana Power Generation Corporation Limited	Haryana	710.00	1.8820	40.15	0.7555	8.2513	1092.10	0.0580	1.6858	6.3820	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1255	8.2513
63	56	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	West Bengal	600.00	2.9388	37.22	1.0940	1.0940	100.00	0.0309	0.9836	0.0000	0.0000	0.0000	0.0000	0.0795	0.0000	0.0000	0.0000	0.0000	1.0940

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization	
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
64	57	HINDUJA NATIONAL POWER CORPORATION LIMITED	HINDUJA NATIONAL POWER CORPORATION LIMITED	Andhra Pradesh	1040.00	0.2098	40.28	0.0845	0.4047	478.97	0.2241	0.0119	0.1679	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4047
66	58	DISHERGARH POWER STATION	INDIA POWER CORPORATION LTD.	West Bengal	12.00	0.0328	50.68	0.0166	0.0166	100.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0166	0.0000	0.0000	0.0166	
67	59	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS LTD.	Odisha	200.00	1.1271	46.14	0.5201	0.5201	100.00	0.1324	0.1174	0.0000	0.0000	0.0000	0.0000	0.2698	0.0000	0.0000	0.0006	0.5201	
68	60	IL & FS TAMIL NADU POWER COMPANY LTD.	IL & FS TAMIL NADU POWER COMPANY LIMITED	Tamil Nadu	1200.00	1.6653	4.60	0.0766	0.0766	100.00	0.0000	0.0766	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0766	
69	61	BELA TPS	IDEAL ENERGY PROJECTS LIMITED	Maharashtra	270.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
209	62	JK CAPTIVE POWER PLANT	JK CEMENT WORKS MUDDAPUR	Karnataka	50.00	0.0752	18.71	0.0141	0.0141	100.00	0.0000	0.0127	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0141	
70	63	MAHATMA GANDHI TPP	JHAJJAR POWER LIMITED	Haryana	1320.00	4.7383	38.08	1.8045	1.8045	100.00	0.1682	1.4809	0.0000	0.0201	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1353	1.8045
71	64	O.P. Jindal Super TPP (Stage-1)	JINDAL POWER LIMITED	Chhattisgarh	1000.00	4.1450	44.27	1.8349	1.5543	84.71	0.0000	0.1892	0.0000	0.0000	0.0000	0.1152	0.6250	0.6250	0.0000	0.0000	1.5543	
72	65	TAMNAR TPP	JINDAL POWER LIMITED	Chhattisgarh	2400.00	7.8620	45.39	3.5688	3.1956	89.54	0.0027	0.0009	0.0000	0.0000	0.0000	0.2348	0.5099	2.4474	0.0000	0.0000	3.1956	
73	66	JAYPEE BINA TPP	JAIPRAKSH POWER VENTURES LIMITED	Madhya Pradesh	500.00	1.7846	38.51	0.6873	0.5611	81.64	0.0007	0.2802	0.0000	0.0000	0.0000	0.0000	0.2802	0.0000	0.0000	0.0000	0.5611	
74	67	JAYPEE NIGRIE SUPER TPP	JAIPRAKSH POWER VENTURES LIMITED	Madhya Pradesh	1320.00	4.9685	31.79	1.5794	1.4143	89.55	0.0316	1.0205	0.0000	0.0000	0.0000	0.0000	0.3622	0.0000	0.0000	0.0000	1.4143	
75	68	RATNAGIRI	JSW ENERGY LIMITED	Maharashtra	1200.00	2.7286	13.19	0.3599	0.3600	100.02	0.0923	0.0871	0.0000	0.1497	0.0000	0.0310	0.0000	0.0000	0.0000	0.0000	0.3600	
76	69	VIJAYANAGAR	JSW ENERGY LIMITED	Karnataka	860.00	1.3431	18.95	0.2545	0.2545	99.99	0.0400	0.1187	0.0000	0.0000	0.0000	0.0838	0.0000	0.0000	0.0000	0.0121	0.2545	
77	70	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	Odisha	1200.00	5.8576	41.00	2.4016	1.2906	53.74	0.2382	0.0017	0.0000	0.0000	0.0000	0.3846	0.6661	0.0000	0.0000	0.0000	1.2906	
78	71	DONGAMAHUA CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	Chhattisgarh	576.00	1.9487	49.01	0.9551	0.9548	99.97	0.0007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.9541	0.0000	0.0000	0.9548	
79	72	ANGUL CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	Odisha	810.00	2.9280	43.82	1.2830	0.4550	35.46	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.4180	0.0000	0.0000	0.0000	0.4550	
80	73	JSW ENERGY (BARMER) LIMITED	JSW ENERGY (BARMER) LIMITED	Rajasthan	1080.00	6.0669	14.79	0.8972	0.8468	94.38	0.1997	0.5806	0.0000	0.0000	0.0000	0.0000	0.0000	0.0664	0.0000	0.0000	0.8468	
81	74	JSW STEEL LIMITED CPP-II	JSW STEEL LIMITED	Tamil Nadu	90.00	0.1433	6.57	0.0094	0.0094	100.30	0.0094	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0094	
82	75	JINDAL STEEL AND POWER LIMITED (CPP)	JINDAL STEEL AND POWER LIMITED	Chhattisgarh	299.00	0.6655	49.57	0.3299	0.3299	100.00	0.1147	0.0150	0.0000	0.0000	0.0000	0.0000	0.2002	0.0000	0.0000	0.0000	0.3299	
83	76	JHABUA POWER LIMITED	JHABUA POWER LIMITED	Madhya Pradesh	600.00	2.5542	40.00	1.0217	0.5690	55.69	0.0663	0.3509	0.0077	0.0000	0.0000	0.0000	0.1441	0.0000	0.0000	0.0000	0.5690	
84	77	BALLARI	KARNATAKA POWER CORPORATION LIMITED	Karnataka	1700.00	4.3615	39.05	1.7030	1.2838	75.39	0.2294	1.0544	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2838	
85	78	RAICHUR POWER PLANT	KARNATAKA POWER CORPORATION LIMITED	Karnataka	1720.00	4.7382	42.49	2.0131	1.9668	97.70	0.7856	1.1793	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9668	
87	79	KMPCL - NARIYARA	KSK MAHANADI POWER COMPANY LIMITED	Chhattisgarh	1800.00	5.8487	35.20	2.0586	2.2392	108.77	0.0199	1.0871	0.0002	0.0000	0.0000	0.0000	0.9364	0.1955	0.0000	0.0000	2.2392	
88	80	LANCO AMARKANTAK TPS	LANCO AMARKANTAK POWER LIMITED	Chhattisgarh	600.00	2.7643	40.05	1.1070	0.8297	74.95	0.0164	0.3609	0.0416	0.0000	0.0000	0.0000	0.4109	0.0000	0.0000	0.0000	0.8297	
89	81	LALITPUR	LALITPUR POWER GENERATION COMPANY LIMITED	Uttar Pradesh	1980.00	5.8691	35.68	2.0943	1.8855	90.03	0.0000	1.3095	0.0000	0.0000	0.0000	0.0000	0.5760	0.0000	0.0000	0.0000	1.8855	
90	82	ANPARA 'C' TPS	LANCO ANPARA POWER LIMITED	Uttar Pradesh	1200.00	5.2435	32.61	1.7101	0.2191	12.81	0.0170	0.2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2191	
47	83	MAHAN	MAHAN ENERGEN LTD.	Madhya Pradesh	1200.00	2.3755	35.19	0.8359	0.2128	25.46	0.0000	0.0532	0.0000	0.0000	0.0000	0.0000	0.1596	0.0000	0.0000	0.0000	0.2128	
91	84	MAITHON RIGHT BANK TPP	MAITHON POWER LIMITED	Jharkhand	1050.00	4.5775	40.45	1.8518	1.6577	89.52	0.1080	0.4272	0.0000	0.0000	0.0000	0.0000	0.0127	1.1098	0.0000	0.0000	1.6577	
92	85	SANJAY GANDHI	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	1340.00	4.9303	38.32	1.8895	1.3509	71.50	0.0337	0.7035	0.0213	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.5918	1.3509	
93	86	SATPURA	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	1330.00	2.2246	40.32	0.8970	0.8954	99.82	0.3870	0.0611	0.0006	0.0421	0.0000	0.0861	0.0000	0.0000	0.0000	0.3185	0.8954	

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
94	87	AMARKANTAK	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	210.00	0.9913	36.13	0.3582	0.1400	39.09	0.0479	0.0549	0.0035	0.0000	0.0000	0.0000	0.0338	0.0000	0.0000	0.0000	0.1400
95	88	SHREE SINGAJI TPS	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	Madhya Pradesh	2520.00	6.8838	39.80	2.7398	0.9937	36.27	0.0031	0.6375	0.0000	0.0000	0.0000	0.2068	0.0000	0.0000	0.0000	0.1462	0.9937
96	89	BHUSAWAL	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	1210.00	4.7446	40.19	1.9071	1.9251	100.94	0.1706	0.8522	0.1576	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.7440	1.9251
97	90	CHANDRAPUR	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	2920.00	11.5712	38.90	4.5013	0.8767	19.48	0.0717	0.8010	0.0000	0.0000	0.0000	0.0000	0.0009	0.0000	0.0000	0.0032	0.8767
98	91	KHAPARKHEDA	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	1340.00	6.2042	41.62	2.5825	1.8908	73.22	0.6069	0.0000	0.5399	0.0000	0.0000	0.7440	0.0000	0.0000	0.0000	0.0000	1.8908
99	92	KORADI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	2190.00	8.1874	36.13	2.9579	2.3997	81.13	0.8531	0.0674	0.8542	0.0000	0.0000	0.6182	0.0068	0.0000	0.0000	0.0000	2.3997
100	93	NASHIK	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	630.00	1.6781	39.75	0.6670	5.3617	803.91	4.8709	0.3315	0.1593	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.3617
101	94	PARLI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	750.00	1.9664	39.95	0.7856	19.0800	2428.62	0.1286	0.1718	0.0000	0.1545	0.0000	0.0000	0.0000	0.0000	0.0550	18.5701	19.0800
102	95	PARAS	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	Maharashtra	500.00	1.9981	40.40	0.8072	1.2009	148.78	0.9449	0.0277	0.2283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2009
103	96	MCCPL BANDHAKHAR	MARUTI CLEAN COAL AND POWER LIMITED	Chhattisgarh	300.00	1.5200	44.45	0.6756	0.6756	100.00	0.0000	0.0000	0.6756	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.6756
104	97	SAI WARDHA POWER Ltd., WARDORA	SAI WARDHA POWER GENERATION PVT LTD.	Maharashtra	540.00	1.4753	28.61	0.4221	0.4221	100.00	0.0359	0.3006	0.0000	0.0131	0.0000	0.0000	0.0000	0.0725	0.0000	0.0000	0.4221
105	98	MEENAKSHI ENERGY LIMITED	MEENAKSHI ENERGY LIMITED	Andhra Pradesh	300.00	0.3049	5.63	0.0172	0.0016	9.51	0.0016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016
107	99	ANUPPUR TPS	MB POWER (MADHYA PRADESH) LIMITED	Madhya Pradesh	1200.00	5.4355	40.20	2.1848	2.1894	100.21	0.0156	0.9340	0.0000	0.0000	0.0000	0.0000	1.2397	0.0000	0.0000	0.0000	2.1894
110	100	NEVELI - I EXPN	NLC INDIA LIMITED	Tamil Nadu	420.00	0.3302	5.89	0.0195	0.0195	100.00	0.0035	0.0102	0.0000	0.0000	0.0000	0.0011	0.0001	0.0024	0.0022	0.0000	0.0195
111	101	NEVELI - II	NLC INDIA LIMITED	Tamil Nadu	1470.00	10.7011	5.92	0.6339	1.5598	246.09	0.2457	0.1825	0.8675	0.0000	0.0000	0.0175	0.0000	0.1882	0.0000	0.0584	1.5598
112	102	NEVELI - II EXPN	NLC INDIA LIMITED	Tamil Nadu	500.00	1.9771	6.75	0.1334	0.1304	97.79	0.1006	0.0024	0.0000	0.0000	0.0000	0.0030	0.0000	0.0223	0.0000	0.0021	0.1304
112 - A	103	NEVELI NEW THERMAL POWER STATION	NLC INDIA LIMITED	Tamil Nadu	1000.00	6.1809	5.06	0.3127	0.3127	100.00	0.0807	0.1847	0.0000	0.0003	0.0000	0.0123	0.0000	0.0347	0.0000	0.0000	0.3127
113	104	BARSINGAR LIGNITE	NLC INDIA LIMITED	Rajasthan	250.00	1.3712	13.93	0.1910	0.1910	100.00	0.0389	0.1204	0.0000	0.0000	0.0000	0.0000	0.0000	0.0317	0.0000	0.0000	0.1910
114	105	NLC TAMILNADU POWER Ltd	NLC TAMIL NADU POWER LIMITED	Tamil Nadu	1000.00	3.0423	37.42	1.1385	1.1385	100.00	0.2755	0.8542	0.0088	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1385
121	106	SINGRAULI	NTPC LTD.	Uttar Pradesh	2000.00	9.4205	32.11	3.0245	1.7404	57.54	0.0092	0.0002	0.3390	0.0000	0.0000	0.1380	0.0000	0.0000	0.0000	1.2540	1.7404
125	107	KORBA SUPER	NTPC LTD.	Chhattisgarh	2600.00	13.9488	36.32	5.0667	2.8895	57.03	0.0802	0.0008	0.5987	0.0000	0.0000	1.4893	0.2354	0.4852	0.0000	0.0000	2.8895
128	108	RAMAGUNDAM SUPER	NTPC LTD.	Telangana	2600.00	10.8164	36.41	3.9383	5.5501	140.92	0.8766	0.8253	2.1044	0.0000	0.0000	0.0887	0.0139	0.4412	0.0000	1.2000	5.5501
130	109	FARAKKA SUPER	NTPC LTD.	West Bengal	2100.00	8.1047	34.40	2.7881	3.8222	137.09	0.0372	0.2481	2.7359	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8010	3.8222
126	110	VINDHYACHAL	NTPC LTD.	Madhya Pradesh	4760.00	24.2778	33.93	8.2382	4.3700	53.05	0.2942	0.1412	0.3620	0.0000	0.0000	1.1179	1.1686	0.1458	0.0000	1.1403	4.3700
122	111	RIHAND	NTPC LTD.	Uttar Pradesh	3000.00	13.4828	27.51	3.7085	2.1983	59.28	0.0948	0.1511	0.7721	0.0000	0.0000	0.4186	0.5318	0.0000	0.0000	0.2300	2.1983
131	112	KAHALGAON SUPER	NTPC LTD.	Bihar	2340.00	11.8333	35.75	4.2309	3.3273	78.64	0.2483	0.8560	1.7629	0.0000	0.0000	0.3701	0.0000	0.0000	0.0480	0.0420	3.3273
120	113	DADRI	NTPC LTD.	Uttar Pradesh	1820.00	3.6991	34.75	1.2853	1.2869	100.13	0.2347	0.9688	0.0000	0.0000	0.0000	0.0000	0.0537	0.0000	0.0000	0.0298	1.2869
135	114	TALCHER - KANIHA	NTPC LTD.	Odisha	3000.00	16.8814	40.74	6.8777	3.7592	54.66	0.1282	0.0000	1.4016	0.0000	0.0000	1.6763	0.1463	0.4069	0.0000	0.0000	3.7592
123	115	FEROZE GANDHI UNCHAHAR	NTPC LTD.	Uttar Pradesh	1550.00	5.5278	37.72	2.0848	3.3188	159.19	0.0611	0.6859	1.7762	0.1644	0.0000	0.0000	0.0000	0.0000	0.0000	0.6313	3.3188
129	116	SIMHADRI SUPER	NTPC LTD.	Andhra Pradesh	2000.00	8.9448	40.15	3.5916	4.0174	111.86	0.6649	0.2936	2.4720	0.0869	0.0000	0.0000	0.0000	0.0000	0.0000	0.5000	4.0174
124	117	TANDA	NTPC LTD.	Uttar Pradesh	1760.00	5.4560	41.36	2.2564	3.0558	135.43	0.0045	0.6576	1.7966	0.0000	0.0000	0.0000	0.0971	0.0000	0.0000	0.5000	3.0558

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
127	118	SIPAT SUPER	NTPC LTD.	Chhattisgarh	2980.00	14.0872	36.90	5.1977	3.0803	59.26	0.2713	0.0686	0.6795	0.0000	0.0000	0.9112	0.3409	0.0000	0.0000	0.8089	3.0803
137	119	MOUDA SUPER TPS	NTPC LTD.	Maharashtra	2320.00	8.6862	39.21	3.4059	3.7864	111.17	0.4486	0.3853	1.5560	0.0000	0.0000	0.1171	0.1954	0.0034	0.0000	1.0807	3.7864
132	120	BARH SUPER TPS	NTPC LTD.	Bihar	1980.00	5.6746	38.00	2.1564	3.4101	158.14	0.2342	0.3343	2.1527	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.6886	3.4101
138	121	BONGAIGAON	NTPC LTD.	Assam	750.00	2.4930	30.38	0.7573	0.4393	58.01	0.0634	0.3759	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4393
140	122	KUDGI	NTPC LTD.	Karnataka	2400.00	3.9734	33.60	1.3351	0.7179	53.77	0.0091	0.5773	0.0000	0.0344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0971	0.7179
139	123	SOLAPUR SUPER TPS	NTPC LTD.	Maharashtra	1320.00	3.2532	34.91	1.1357	0.8579	75.54	0.2807	0.5532	0.0000	0.0216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0023	0.8579
143	124	LARA SUPER TPS	NTPC LTD.	Chhattisgarh	1600.00	7.8073	41.42	3.2342	1.8232	56.37	0.0050	0.0000	0.8964	0.0000	0.0000	0.8241	0.0266	0.0000	0.0000	0.0710	1.8232
142	125	BARAUNI	NTPC LTD.	Bihar	610.00	1.5121	39.75	0.6011	0.4772	79.39	0.0164	0.2904	0.1699	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000	0.4772
141	126	GADARWARA SUPER	NTPC LTD.	Madhya Pradesh	1600.00	5.1421	32.77	1.6850	0.6343	37.64	0.0047	0.1087	0.0119	0.0000	0.0000	0.0000	0.1530	0.0000	0.0000	0.3560	0.6343
145	127	KHARGONE SUPER THERMAL POWER STATION	NTPC LTD.	Madhya Pradesh	1320.00	3.8405	35.59	1.3669	0.7987	58.43	0.0170	0.6606	0.0211	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1000	0.7987
136	128	DARLIPALI SUPER TPS	NTPC LTD.	Odisha	1600.00	6.5578	46.70	3.0627	1.7770	58.02	0.0000	0.0009	0.8427	0.0000	0.0000	0.0000	0.0000	0.0311	0.0000	0.9023	1.7770
117	129	DURGAPUR CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	West Bengal	120.00	0.7292	38.04	0.2774	0.2906	104.75	0.1373	0.0116	0.0000	0.0000	0.0000	0.0000	0.1417	0.0000	0.0000	0.0000	0.2906
118	130	ROURKELA CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	Odisha	120.00	0.9464	45.04	0.4263	0.3539	83.01	0.0889	0.0000	0.0905	0.0167	0.0000	0.0000	0.0730	0.0848	0.0000	0.0000	0.3539
115	131	BHILAI PP-II	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	Chhattisgarh	74.00	0.4423	40.84	0.1806	0.1083	59.98	0.0104	0.0253	0.0025	0.0000	0.0000	0.0003	0.0699	0.0000	0.0000	0.0000	0.1083
116	132	BHILAI PP - III	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	Chhattisgarh	500.00	2.6638	42.87	1.1421	0.6602	57.81	0.1406	0.3940	0.1214	0.0000	0.0000	0.0000	0.0042	0.0000	0.0000	0.0000	0.6602
86	133	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED (NTPC-JV)	Bihar	610.00	2.0640	38.23	0.7890	1.3230	167.68	0.0567	0.0000	0.6842	0.0649	0.0000	0.0000	0.2036	0.0000	0.0000	0.3136	1.3230
10	134	INDIRA GANDHI	ARAVALI POWER CORPORATION PVT LTD (NTPC-JV)	Haryana	1500.00	4.6690	35.17	1.6420	2.6160	159.32	0.4780	1.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1280	2.6160
119	135	VALLUR	NTPC TAMILNADU ENERGY COMPANY LTD (NTECL) (NTPC-JV)	Tamil Nadu	1500.00	5.9563	41.08	2.4466	1.9107	78.10	0.2083	0.4553	0.4553	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7918	1.9107
22	136	NABINAGAR- BRBCL	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	Bihar	1000.00	3.9439	40.88	1.6124	0.9127	56.60	0.0298	0.3545	0.3883	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1400	0.9127
108	137	MEJA TPP	MEJA URJA NIGAM PRIVATE LIMITED (NTPC-JV)	Uttar Pradesh	1320.00	5.0488	36.10	1.8226	1.3207	72.47	0.0086	0.9305	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000	0.0000	0.3808	1.3207
133	138	NABINAGAR-NPGC	NPGC (NTPC-JV)	Bihar	1320.00	4.9505	34.01	1.6838	0.8596	51.06	0.0121	0.8445	0.0000	0.0000	0.0000	0.0000	0.0030	0.0000	0.0000	0.0000	0.8596
146	139	RAJPURA TPS	NABHA POWER LIMITED	Punjab	1400.00	5.4363	35.97	1.9556	1.9570	100.07	0.0871	1.3932	0.3025	0.1743	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9570
147	140	NALCO, CPP ANGUL	NATIONAL ALUMINIUM COMPANY LIMITED	Odisha	1200.00	5.6832	47.40	2.6936	2.3066	85.63	0.5719	0.0000	0.2597	0.0000	0.0000	0.1674	0.5344	0.7732	0.0000	0.0000	2.3066
148	141	IB VALLEY	ODISHA POWER GENERATION CORPORATION LIMITED	Odisha	1740.00	8.0133	44.74	3.5855	0.9812	27.37	0.0079	0.3529	0.0000	0.0000	0.0000	0.2663	0.3493	0.0000	0.0000	0.0048	0.9812
149	142	OPG POWER GENERATION PRIVATE LIMITED	OPG POWER GENERATION PRIVATE LIMITED	Tamil Nadu	414.00	0.9740	10.57	0.1030	0.1030	100.00	0.0206	0.0824	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1030
150	143	GURU NANAKDEV TPS, BATHINDA	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	460.00	0.0000	-	0.0000	0.3045	-	0.0636	0.2408	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3045
151	144	GURU HARGOBIND TPP, LEHRA MOHABAT	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	920.00	1.3176	37.53	0.4945	0.3483	70.44	0.0570	0.2914	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3483
152	145	GURU GOBIND SINGH TPP, ROPAR	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	840.00	1.1760	36.06	0.4240	1.3636	321.62	0.0164	0.9254	0.1572	0.0000	0.0000	0.0000	0.2631	0.0000	0.0016	0.0000	1.3636
153	146	GVK POWER (GOINDWALSAHIB) LTD.	PUNJAB STATE POWER CORPORATION LIMITED	Punjab	540.00	1.3049	33.66	0.4392	0.3452	78.60	0.0870	0.2479	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.3452
154	147	PRAYAGRAJ TPS	PRAYAGRAJ POWER GENERATION COMPANY LTD.	Uttar Pradesh	1980.00	7.2152	33.53	2.4194	2.1075	87.11	0.0003	1.3473	0.0000	0.0000	0.0000	0.3419	0.1306	0.2875	0.0000	0.0000	2.1075

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
155	148	R.K.M. POWERGEN PVT. LTD	R.K.M. POWERGEN PVT. LTD	Chhattisgarh	1440.00	5.2652	46.77	2.4624	2.4602	99.91	0.0000	0.1210	0.0911	0.0000	0.0000	0.0000	0.0603	1.4043	0.0000	0.7835	2.4602
156	149	CHHABRA	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1000.00	2.9575	32.54	0.9623	0.6222	64.65	0.1412	0.3711	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1098	0.6222
157	150	CHHABRA SUPER CRITICAL TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1320.00	3.2046	31.05	0.9949	0.8180	82.22	0.1007	0.3962	0.0000	0.0000	0.0000	0.0000	0.3211	0.0000	0.0000	0.0000	0.8180
158	151	SURATGARH	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1500.00	2.4975	39.18	0.9786	1.8438	188.42	0.0000	0.2608	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5830	1.8438
159	152	KALISINDH SUPER TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1200.00	4.3679	32.21	1.4069	1.4298	101.62	0.1317	0.6142	0.0000	0.0000	0.0000	0.0000	0.1131	0.0000	0.0000	0.5708	1.4298
160	153	KOTA SUPER THERMAL POWER STATION	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	1240.00	4.9127	34.75	1.7071	2.0508	120.13	0.5615	1.2824	0.1226	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0834	2.0508
161	154	GIRAL TPS	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	Rajasthan	250.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
162	155	ROSA TPP	ROSA POWER SUPPLY COMPANY LIMITED	Uttar Pradesh	1200.00	3.6516	36.38	1.3284	1.0491	78.98	0.0164	0.8086	0.0000	0.0002	0.0000	0.0000	0.2112	0.0000	0.0000	0.0128	1.0491
163	156	AMARAVATI TPS	RATTANINDIA POWER LTD.	Maharashtra	1350.00	5.9049	40.51	2.3922	1.9421	81.19	0.8225	0.0000	0.0000	0.0434	0.0000	0.0000	1.0687	0.0075	0.0000	0.0000	1.9421
164	157	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	Karnataka	1600.00	3.2876	39.94	1.3131	1.1415	86.93	0.3671	0.7744	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1415
165	158	RINL CAPTIVE TPP	RASHTRIYA ISPAT NIGAM LIMITED	Andhra Pradesh	315.00	1.3955	36.63	0.5111	0.4667	91.31	0.0000	0.1404	0.0000	0.0000	0.0000	0.0000	0.3263	0.0000	0.0000	0.0000	0.4667
106	159	RAIGARH TPP	RAIGARH ENERGY GENERATION LIMITED	Chhattisgarh	600.00	2.7684	39.55	1.0950	0.4100	37.44	0.0000	0.0000	0.0000	0.0000	0.0000	0.0410	0.3690	0.0000	0.0000	0.0000	0.4100
166	160	RAIPUR TPP	RAIPUR ENERGEN LIMITED	Chhattisgarh	1370.00	6.1867	32.99	2.0409	2.0013	98.06	0.0395	1.0231	0.0487	0.0000	0.0000	0.0000	0.1727	0.7173	0.0000	0.0000	2.0013
167	161	SASAN UMPP TPP	RELIANCE POWER LIMITED	Madhya Pradesh	3960.00	18.3084	29.21	5.3475	2.7994	52.35	0.0360	0.0000	0.0000	0.0010	0.0000	2.7624	0.0000	0.0000	0.0000	0.0000	2.7994
169	162	SAI LILAGAR POWER GENERATION LTD.	SAI LILAGAR POWER GENERATION LIMITED	Chhattisgarh	86.00	0.0102	40.00	0.0041	0.0041	100.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0041	0.0000	0.0000	0.0000	0.0041
170	163	SEMBCORP ENERGY INDIA LTD.	SEMBCORP ENERGY INDIA LTD.	Andhra Pradesh	1320.00	5.6517	30.07	1.6994	1.6999	100.03	0.1685	1.2658	0.0045	0.0197	0.0000	0.1453	0.0961	0.0000	0.0000	0.0000	1.6999
171	164	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	SWASTIK POWER & MINERALS RESOURCES PVT. LTD.	Chhattisgarh	25.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
172	165	SKS POWER GENERATION (CH) LTD.	SKS POWER GENERATION (CHATTISGARH) LIMITED	Chhattisgarh	600.00	1.2299	45.30	0.5571	0.5317	95.43	0.0114	0.0466	0.0011	0.0000	0.0000	0.0000	0.0000	0.4726	0.0000	0.0000	0.5317
44	166	THE DURGAPUR PROJECTS POWER STATION	THE DURGAPUR PROJECTS LIMITED	West Bengal	550.00	1.7782	40.70	0.7238	0.4812	66.48	0.0000	0.4660	0.0000	0.0000	0.0000	0.0000	0.0151	0.0000	0.0000	0.0000	0.4812
173	167	SINGARENI TPP	THE SINGARENI COLLIERIES COMPANY LIMITED	Telangana	1200.00	5.3570	36.06	1.9320	2.2660	117.29	0.4216	0.6827	0.2138	0.4192	0.0000	0.0000	0.0198	0.4278	0.0000	0.0811	2.2660
174	168	CUDDALORE - TAQA	TAQA NEVELLY POWER CO.PVT. LTD.	Tamil Nadu	250.00	1.5391	4.95	0.0761	0.0639	83.98	0.0128	0.0390	0.0000	0.0000	0.0000	0.0000	0.0000	0.0122	0.0000	0.0000	0.0639
175	169	JOJOBERA	THE TATA POWER COMPANY LIMITED	Jharkhand	547.50	2.5463	39.44	1.0042	1.0140	100.97	0.0126	0.5810	0.2490	0.0921	0.0000	0.0000	0.0793	0.0000	0.0000	0.0000	1.0140
176	170	TROMBAY	THE TATA POWER COMPANY LIMITED	Maharashtra	750.00	2.3100	2.37	0.0548	0.0548	100.00	0.0079	0.0000	0.0000	0.0413	0.0000	0.0000	0.0000	0.0000	0.0015	0.0041	0.0548
177	171	SABARMATI TPS	TORRENT POWER LTD.	Gujarat	362.00	1.3768	27.16	0.3739	0.3739	100.00	0.0000	0.2909	0.1037	0.0000	0.0000	-0.0550	0.0000	0.0000	0.0344	0.0000	0.3739
178	172	TUTICORIN	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	1050.00	4.2787	35.33	1.5117	0.6393	42.29	0.1288	0.5063	0.0000	0.0000	0.0000	0.0000	0.0042	0.0000	0.0000	0.0000	0.6393
179	173	METTUR-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	840.00	3.8621	36.52	1.4106	1.4286	101.28	0.2400	0.1063	0.0000	0.0000	0.0000	0.0871	0.0581	0.0000	0.0000	0.9372	1.4286
180	174	METTUR-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	600.00	2.1625	35.29	0.7632	0.7632	100.00	0.0213	0.4277	0.0000	0.0000	0.0000	0.3142	0.0000	0.0000	0.0000	0.0000	0.7632

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization	
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
181	175	NORTH CHENNAI-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	630.00	2.4931	40.86	1.0188	1.4507	142.40	0.0466	0.0928	1.2389	0.0724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4507
182	176	NORTH CHENNAI-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	Tamil Nadu	1200.00	3.6840	40.42	1.4890	1.5591	104.71	0.3987	0.7054	0.4550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5591
184	177	RAMAGUNDAM 'B'	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	62.50	0.2080	42.34	0.0881	0.2298	260.94	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2298	0.2298	
185	178	KOTHAGUDEM-V	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	500.00	2.4468	47.94	1.1731	0.6750	57.54	0.0491	0.2866	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3393	0.6750	
186	179	KOTHAGUDEM-VI	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	500.00	1.7673	38.26	0.6761	0.4390	64.93	0.0249	0.3464	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0091	0.0586	0.4390	
187	180	KOTHAGUDEM-VII	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	800.00	2.9038	32.61	0.9470	0.5190	54.80	0.1736	0.3453	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5190	
188	181	KAKATIYA (Stage-I)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	500.00	2.0798	37.38	0.7773	0.6475	83.30	0.4559	0.1621	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0296	0.6475	
189	182	KAKATIYA (Stage-II)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	Telangana	600.00	2.0443	37.19	0.7602	0.6493	85.42	0.2977	0.1754	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1763	0.6493	
190	183	RAIGARH TPP	TRN ENERGY PRIVATE LIMITED	Chhattisgarh	600.00	0.5500	41.32	0.2273	0.1139	50.12	0.0246	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0893	0.0000	0.0000	0.1139	
191	184	TENUGHAT TPS	TENUGHAT VIDYUT NIGAM LIMITED	Jharkhand	420.00	1.2714	31.25	0.3973	0.4478	112.70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4478	0.0000	0.0000	0.0000	0.4478	
192	185	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.	Punjab	1980.00	6.0191	39.89	2.4013	2.1702	90.38	0.7452	0.8311	0.4039	0.0157	0.0000	0.0000	0.1743	0.0000	0.0000	0.0000	2.1702	
193	186	ANPARA 'A' & 'B'	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	2630.00	11.3914	35.05	3.9928	0.1048	2.62	0.0001	0.0860	0.0000	0.0000	0.0000	0.0098	0.0088	0.0000	0.0000	0.0000	0.1048	
194	187	HARDUAGANJ	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	1270.00	1.2795	43.13	0.5519	1.1912	215.84	0.0349	0.1393	0.0000	0.0000	0.0000	0.5000	0.5169	0.0000	0.0000	0.0000	1.1912	
195	188	OBRA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	1000.00	3.4499	39.83	1.3742	0.0755	5.49	0.0006	0.0749	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0755	
197	189	PARICHAHA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	Uttar Pradesh	920.00	2.6527	41.71	1.1066	0.7457	67.39	0.1187	0.5832	0.0071	0.0000	0.0000	0.0000	0.0367	0.0000	0.0000	0.0000	0.7457	
198	190	UDUPI	UDUPI POWER CORPORATION LIMITED	Karnataka	1200.00	0.7265	7.88	0.0572	0.0587	102.62	0.0097	0.0231	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0120	0.0587		
199	191	BUTIBORI	VIDARBHA INDUSTRIES POWER LTD.	Maharashtra	600.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
200	192	VS LIGNITE POWER PRIVATE LTD	VS LIGNITE POWER PRIVATE LIMITED	Rajasthan	135.00	0.9105	24.88	0.2265	0.2265	100.00	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1961	0.2265		
201	193	VEDANTA LTD TPP	VEDANTA LIMITED	Odisha	2400.00	10.2404	42.97	4.4006	5.2762	119.90	0.0463	0.1549	0.2030	0.0000	0.0000	0.0000	4.3834	0.0000	0.0000	0.4886	5.2762	
202	194	VEDANTA LTD CPP	VEDANTA LIMITED	Odisha	1215.00	7.7857	4.45	0.3464	4.2202	1218.21	0.0131	0.0349	0.0143	0.0000	0.0000	0.0000	3.2730	0.0000	0.0000	0.8847	4.2202	
203	195	KOLAGHAT	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1260.00	3.3744	43.92	1.4819	1.6494	111.30	0.0803	0.5587	0.1864	0.0000	0.0000	0.0000	0.8240	0.0000	0.0000	0.0000	1.6494	
204	196	SAGARDIGHI	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1600.00	7.2902	32.37	2.3600	1.8778	79.57	0.0760	0.9787	0.0000	0.0000	0.0000	0.0000	0.8231	0.0000	0.0000	0.0000	1.8778	
205	197	BANDEL	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	335.00	1.3854	42.12	0.5836	0.6317	108.24	0.0162	0.3249	0.1652	0.0000	0.0000	0.0000	0.1254	0.0000	0.0000	0.0000	0.6317	

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021 - 22 (APRIL - 2021 TO MARCH - 2022)

(POWER UTILITY WISE)

Index No.	Sl No.	Name of TPS	Name of Power Utility	State	Installed Capacity	Coal Consumed	Ash Content of coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
					(MW)	(MT)	%	(MT)	(MT)	%	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(MT)
206	198	SANTALDIH TPS	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	500.00	2.7777	50.49	1.4024	0.7772	55.42	0.0321	0.5393	0.0000	0.0000	0.0000	0.0774	0.1284	0.0000	0.0000	0.0000	0.7772
207	199	BAKRESWAR	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	West Bengal	1050.00	5.1987	33.68	1.7510	0.4807	27.45	0.0504	0.3767	0.0000	0.0000	0.0000	0.0000	0.0402	0.0134	0.0000	0.0000	0.4807
208	200	SITAPURAM TPS	ZUARI CEMENT LIMITED	Telangana	43.00	0.2017	50.41	0.1017	0.1017	100.00	0.0000	0.0816	0.0000	0.0000	0.0000	0.0000	0.0201	0.0000	0.0000	0.0000	0.1017
			<b>Grand Total</b>		<b>213620.50</b>	<b>759.0151</b>	<b>35.68</b>	<b>270.8216</b>	<b>259.8628</b>	<b>95.95</b>	<b>31.6237</b>	<b>68.8283</b>	<b>45.9899</b>	<b>2.2191</b>	<b>0.0006</b>	<b>14.8201</b>	<b>35.5694</b>	<b>18.3799</b>	<b>0.1541</b>	<b>42.2778</b>	<b>259.8628</b>

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

SI no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	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)
<b>ANDHRA PRADESH</b>																			
1	Dr. N.T.R TPS	APGENCO	1760.00	9.1956	45.27	4.1629	4.1664	100.08	2.0266	1.4276	0.5112	0.0469	0.0000	0.0000	0.0032	0.0000	0.0000	0.1509	4.1664
2	RAYALSEEMA	APGENCO	1650.00	5.1228	41.78	2.1404	1.5652	73.12	0.3190	1.2462	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5652
3	SRI DAMODARAM SANJEEVAIAH	Andhra Pradesh Power Development Company Limited	1600.00	3.6194	34.06	1.2329	0.8031	65.14	0.2519	0.4394	0.0765	0.0000	0.0000	0.0000	0.0353	0.0000	0.0000	0.0000	0.8031
4	HINDUJA NATIONAL POWER CORPORATION LIMITED	HINDUJA NATIONAL POWER CORPORATION LIMITED	1040.00	0.2098	55.80	0.0845	0.4047	478.97	0.2241	0.0119	0.1679	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4047
5	MEENAKSHI ENERGY LIMITED	MEENAKSHI ENERGY LIMITED	300.00	0.3049	5.63	0.0172	0.0016	9.51	0.0016	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0016
6	SIMHADRI SUPER	NTPC LTD.	2000.00	8.9448	40.15	3.5916	4.0174	111.86	0.6649	0.2936	2.4720	0.0869	0.0000	0.0000	0.0000	0.0000	0.0000	0.5000	4.0174
7	RINL CAPTIVE TPP	RASHTRIYA ISPAT NIGAM LIMITED	315.00	1.3955	36.63	0.5111	0.4667	91.31	0.0000	0.1404	0.0000				0.3263				0.4667
8	SEMBCORP ENERGY INDIA LTD.	SEMBCORP ENERGY INDIA LTD.	1320.00	5.6517	30.07	1.6994	1.6999	100.03	0.1685	1.2658	0.0045	0.0197	0.0000	0.1453	0.0961	0.0000	0.0000	0.0000	1.6999
		SUB TOTAL	9985.00	34.4444	39.02	13.4400	13.1251	97.66	3.6567	4.8249	3.2321	0.1544	0.0000	0.1453	0.4610	0.0000	0.0000	0.6509	13.1251
<b>ASSAM</b>																			
1	BONGAIGAON	NTPC LTD.	750.00	2.4930	30.38	0.7573	0.4393	58.01	0.0634	0.3759	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4393
		SUB TOTAL	750.00	2.4930	30.38	0.7573	0.4393	58.01	0.0634	0.3759	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4393
<b>BIHAR</b>																			
1	NABINAGAR- BRBCL	BHARATIYA RAIL BIJLEE COMPANY LIMITED (NTPC-JV)	1000.00	3.9439	40.88	1.6124	0.9127	56.60	0.0298	0.3545	0.3883	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1400	0.9127
2	KANTI BIJLEE UTPADAN NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED	610.00	2.0640	38.23	0.7890	1.3230	167.68	0.0567	0.0000	0.6842	0.0649	0.0000	0.0000	0.2036	0.0000	0.0000	0.3136	1.3230
3	KAHALGAON SUPER	NTPC LTD.	2340.00	11.8333	35.75	4.2309	3.3273	78.64	0.2483	0.8560	1.7629	0.0000	0.0000	0.3701	0.0000	0.0000	0.0480	0.0420	3.3273
4	BARH SUPER TPS	NTPC LTD.	1980.00	5.6746	38.00	2.1564	3.4101	158.14	0.2342	0.3343	2.1527	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.6886	3.4101
5	BARAUNI	NTPC LTD.	610.00	1.5121	39.75	0.6011	0.4772	79.39	0.0164	0.2904	0.1699	0.0000	0.0000	0.0000	0.0000	0.0000	0.0005	0.0000	0.4772
6	NABINAGAR-NPGC	NPGC (NTPC-JV)	1320.00	4.9505	34.01	1.6838	0.8596	51.06	0.0121	0.8445	0.0000	0.0000	0.0000	0.0000	0.0030	0.0000	0.0000	0.0000	0.8596
		SUB TOTAL	7860.00	29.9784	36.94	11.0736	10.3099	93.10	0.5975	2.6797	5.1580	0.0649	0.0000	0.3701	0.2069	0.0000	0.0485	1.1842	10.3099
<b>CHHATTISGARH</b>																			
1	KASAI PALI	ACB (INDIA) Ltd.	270.00	1.5530	56.67	0.8801	0.8799	99.98	0.0601	0.0000	0.4822	0.0000	0.0000	0.0000	0.3376	0.0000	0.0000	0.0000	0.8799
2	SV PPL Renki	ACB (INDIA) Ltd.	60.00	0.0000	0.00	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	CHAKABURA TPP	ACB (INDIA) Ltd.	30.00	0.1458	60.41	0.0881	0.0881	100.00	0.0062	0.0000	0.0641	0.0000	0.0000	0.0000	0.0178	0.0000	0.0000	0.0000	0.0881
4	CHAKABURA TPP (EXTN)	ACB (INDIA) Ltd.	30.00	0.1486	60.23	0.0895	0.0895	100.00	0.0067	0.0000	0.0656	0.0000	0.0000	0.0000	0.0172	0.0000	0.0000	0.0000	0.0895
5	BALCO CPP	BALCO	540.00	2.4532	40.55	0.9948	1.2077	121.40	0.0246	0.0303	0.1499	0.0000	0.0000	0.0000	0.9096	0.0000	0.0000	0.0933	1.2077
6	Atal Bihari Vajpayee TPP	Chhattisgarh State Power Generation Company Ltd.	1000.00	3.5722	42.37	1.5134	1.0379	68.58	0.0922	0.0187	0.4220	0.0000	0.0000	0.0000	0.5051	0.0000	0.0000	0.0000	1.0379





## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

Sl no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
1	MUNDRA TPS	ADANI POWER (MUNDRA) LIMITED	4620.00	6.5830	5.24	0.3448	0.3566	103.41	0.0000	0.2279	0.0159	0.0000	0.0000	0.0000	0.0193	0.0000	0.0000	0.0935	0.3566
2	BHADRESHWAR VIDYUT PRIVATE LTD TPS	BHADRESHWAR VIDYUT PRIVATE LIMITED	300.00	0.3138	6.84	0.0215	0.0215	100.41	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0215	0.0215
3	MUNDRA UMPP	Coastal Gujarat Power Limited	4150.00	0.3700	9.73	0.0360	0.0420	116.67	0.0001	0.0234	0.0085	0.0064	0.0000	0.0000	0.0000	0.0000	0.0000	0.0036	0.0420
4	SURAT LIGNITE	Gujarat Industries Power Company Limited	500.00	3.1951	14.77	0.4719	0.4719	100.00	0.4256	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0463	0.4719
5	AKRIMOTA	Gujarat Mineral Development Corporation Limited	250.00	0.5752	20.13	0.1158	0.2246	193.91	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2246	0.0000	0.0000	0.2246
6	GANDHINAGAR	Gujarat State Electricity Corporation Limited	630.00	2.2187	34.07	0.7560	1.7979	237.82	0.4897	1.1012	0.1204	0.0866	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.7979
7	KUTCH LIGNITE	Gujarat State Electricity Corporation Limited	150.00	0.6692	27.17	0.1818	0.3085	169.69	0.0000	0.1267	0.0000	0.0000	0.0000	0.0000	0.0000	0.1818	0.0000	0.0000	0.3085
8	SIKKA	Gujarat State Electricity Corporation Limited	500.00	0.4674	9.22	0.0431	0.4209	976.57	0.3010	0.1199	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4209
9	UKAI	Gujarat State Electricity Corporation Limited	1110.00	3.4334	36.52	1.2540	1.2358	98.55	0.5946	0.3342	0.0000	0.0060	0.0000	0.0000	0.0000	0.0090	0.0000	0.2920	1.2358
10	WANAKBORI	Gujarat State Electricity Corporation Limited	2270.00	7.5827	36.28	2.7509	2.2155	80.54	0.1840	1.1412	0.0000	0.0000	0.0000	0.0000	0.0000	0.3740	0.0000	0.5163	2.2155
11	BHAVNAGAR LIGNITE	Gujarat State Electricity Corporation Limited	500.00	1.7861	10.53	0.1880	0.1935	102.93	0.0951	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0984	0.0000	0.0000	0.1935
12	SABARMATI TPS	TORRENT POWER LTD.	362.00	1.3768	27.16	0.3739	0.3739	100.00	0.0000	0.2909	0.1037	0.0000	0.0000	-0.0550	0.0000	0.0000	0.0344	0.0000	0.3739
13	SALAYA TPS	ESSAR POWER GUJARAT LTD.	1200.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		SUB TOTAL	16542.00	28.5714	22.88	6.5377	7.6626	117.21	2.0901	3.3654	0.2485	0.0990	0.0000	-0.0550	0.0193	0.8878	0.0344	0.9732	7.6626
		HARYANA																	
1	INDIRA GANDHI	ARAVALLI POWER CORPORATION PVT LTD (NTPC-TP)	1500.00	4.6690	35.17	1.6420	2.6160	159.32	0.4780	1.0100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1280	2.6160
2	RAJIV GANDHI TPP, Hissar	Haryana Power Generation Corporation Limited	1200.00	1.8506	39.01	0.7219	1.1491	159.18	0.0715	0.3769	0.7007	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1491
3	Deen Bandhu Chhotu Ram TPS, YAMUNANAGAR	Haryana Power Generation Corporation Limited	600.00	1.8405	42.22	0.7770	1.2766	164.29	0.0969	0.4478	0.0014	0.0000	0.0000	0.0000	0.6963	0.0000	0.0000	0.0342	1.2766
4	PANIPAT	Haryana Power Generation Corporation Limited	710.00	1.8820	40.15	0.7555	8.2513	1092.10	0.0580	1.6858	6.3820	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1255	8.2513
5	MAHATMA GANDHI TPP	JHAJJAR POWER LIMITED	1320.00	4.7383	38.08	1.8045	1.8045	100.00	0.1682	1.4809	0.0000	0.0201	0.0000	0.0000	0.0000	0.0000	0.0000	0.1353	1.8045
		SUB TOTAL	5330.00	14.9804	38.06	5.7010	15.0976	264.82	0.8727	5.0013	7.0841	0.0201	0.0000	0.0000	0.6963	0.0000	0.0000	1.4230	15.0976
		JHARKHAND																	
1	ADHUNIK POWER & NATURAL RESOURCES LTD.	ADHUNIK POWER & NATURAL RESOURCES LTD.	540.00	2.5476	43.96	1.1199	0.9762	87.17	0.0687	0.5773	0.0000	0.0387	0.0000	0.0000	0.2915	0.0000	0.0000	0.0000	0.9762
2	BOKARO	Damodar Valley Corporation	500.00	1.7299	43.68	0.7555	0.6764	89.53	0.0003	0.1065	0.1625	0.0000	0.0000	0.0000	0.4071	0.0000	0.0000	0.0000	0.6764
3	CHANDRAPURA	Damodar Valley Corporation	500.00	2.3490	45.02	1.0576	1.0702	101.19	0.0041	0.3638	0.5796	0.0000	0.0000	0.0000	0.0169	0.1057	0.0000	0.0000	1.0702

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

Sl no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
4	KODERMA	Damodar Valley Corporation	1000.00	4.2420	46.35	1.9661	1.8303	93.09	0.0044	0.3178	0.3860	0.0000	0.0000	0.0000	0.3211	0.8009	0.0000	0.0000	1.8303
5	MAITHON RIGHT BANK TPP	MAITHON POWER LIMITED	1050.00	4.5775	40.45	1.8518	1.6577	89.52	0.1080	0.4272	0.0000	0.0000	0.0000	0.0000	0.0127	1.1098	0.0000	0.0000	1.6577
6	JOJOBERA	THE TATA POWER COMPANY LIMITED	547.50	2.5463	39.44	1.0042	1.0140	100.97	0.0126	0.5810	0.2490	0.0921	0.0000	0.0000	0.0793	0.0000	0.0000	0.0000	1.0140
7	TENUGHAT TPS	TENUGHAT VIDHYUT NIGAM LIMITED	420.00	1.2714	31.25	0.3973	0.4478	112.70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.4478	0.0000	0.0000	0.0000	0.4478
		SUB TOTAL	4557.50	19.2635	42.32	8.1525	7.6726	94.11	0.1981	2.3736	1.3771	0.1309	0.0000	0.0000	1.5765	2.0164	0.0000	0.0000	7.6726
<b>KARNATAKA</b>																			
1	VIJAYANAGAR	JSW ENERGY LIMITED	860.00	1.3431	18.95	0.2545	0.2545	99.99	0.0400	0.1187	0.0000	0.0000	0.0000	0.0838	0.0000	0.0000	0.0000	0.0121	0.2545
2	JK CAPTIVE POWER PLANT	JK CEMENT WORKS MUDDAPUR	50.00	0.0752	18.71	0.0141	0.0141	100.00	0.0000	0.0127	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0141
3	RAICHUR POWER PLANT	KARNATAKA POWER CORPORATION LIMITED	1720.00	4.7382	42.49	2.0131	1.9668	97.70	0.7856	1.1793	0.0018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9668
4	BALLARI	KARNATAKA POWER CORPORATION LIMITED	1700.00	4.3615	39.05	1.7030	1.2838	75.39	0.2294	1.0544	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2838
5	KUDGI	NTPC LTD.	2400.00	3.9734	33.60	1.3351	0.7179	53.77	0.0091	0.5773	0.0000	0.0344	0.0000	0.0000	0.0000	0.0000	0.0000	0.0971	0.7179
6	YERAMARUS TPS	RAICHUR POWER CORPORATION LIMITED	1600.00	3.2876	39.94	1.3131	1.1415	86.93	0.3671	0.7744	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1415
7	UDUPI	UDUPI POWER CORPORATION LIMITED	1200.00	0.7265	7.88	0.0572	0.0587	102.62	0.0097	0.0231	0.0000	0.0139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0120	0.0587
		SUB TOTAL	9530.00	18.5056	36.15	6.6901	5.4373	81.27	1.4410	3.7399	0.0031	0.0482	0.0000	0.0838	0.0000	0.0000	0.0000	0.1212	5.4373
<b>MADHYA PRADESH</b>																			
1	MAHAN	MAHAN ENERGEN LTD.	1200.00	2.3755	35.19	0.8359	0.2128	25.46	0.0000	0.0532	0.0000	0.0000	0.0000	0.0000	0.1596	0.0000	0.0000	0.0000	0.2128
2	JAYPEE BINA TPP	JAIPRAKSH POWER VENTURES LIMITED	500.00	1.7846	38.51	0.6873	0.5611	81.64	0.0007	0.2802	0.0000	0.0000	0.0000	0.0000	0.2802	0.0000	0.0000	0.0000	0.5611
3	JAYPEE NIGRIE SUPER TPP	JAIPRAKSH POWER VENTURES LIMITED	1320.00	4.9685	31.79	1.5794	1.4143	89.55	0.0316	1.0205	0.0000	0.0000	0.0000	0.0000	0.3622	0.0000	0.0000	0.0000	1.4143
4	SANJAY GANDHI	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	1340.00	4.9303	38.32	1.8895	1.3509	71.50	0.0337	0.7035	0.0213	0.0000	0.0006	0.0000	0.0000	0.0000	0.0000	0.5918	1.3509
5	SATPURA	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	1330.00	2.2246	40.32	0.8970	0.8954	99.82	0.3870	0.0611	0.0006	0.0421	0.0000	0.0861	0.0000	0.0000	0.0000	0.3185	0.8954
6	AMARKANTAK	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	210.00	0.9913	36.13	0.3582	0.1400	39.09	0.0479	0.0549	0.0035	0.0000	0.0000	0.0000	0.0338	0.0000	0.0000	0.0000	0.1400
7	SHREE SINGAJI TPS	MADHYA PRADESH POWER GENERATING COMPANY LIMITED	2520.00	6.8838	39.80	2.7398	0.9937	36.27	0.0031	0.6375	0.0000	0.0000	0.0000	0.2068	0.0000	0.0000	0.0000	0.1462	0.9937
8	JHABUA POWER LIMITED	JHABUA POWER LIMITED	600.00	2.5542	40.00	1.0217	0.5690	55.69	0.0663	0.3509	0.0077	0.0000	0.0000	0.0000	0.1441	0.0000	0.0000	0.0000	0.5690
9	ANUPPUR TPS	MB POWER (MADHYA PRADESH) LIMITED	1200.00	5.4355	40.20	2.1848	2.1894	100.21	0.0156	0.9340	0.0000	0.0000	0.0000	0.0000	1.2397	0.0000	0.0000	0.0000	2.1894
10	VINDHYACHAL	NTPC LTD.	4760.00	24.2778	33.93	8.2382	4.3700	53.05	0.2942	0.1412	0.3620	0.0000	0.0000	1.1179	1.1686	0.1458	0.0000	1.1403	4.3700
11	GADARWARA SUPER	NTPC LTD.	1600.00	5.1421	32.77	1.6850	0.6343	37.64	0.0047	0.1087	0.0119	0.0000	0.0000	0.0000	0.1530	0.0000	0.0000	0.3560	0.6343
12	SASAN UMPPT TPP	RELIANCE POWER LIMITED	3960.00	18.3084	29.21	5.3475	2.7994	52.35	0.0360	0.0000	0.0000	0.0010	0.0000	2.7624	0.0000	0.0000	0.0000	0.0000	2.7994
13	KHARGONE SUPER THERMAL POWER STATION	NTPC LTD.	1320.00	3.8405	35.59	1.3669	0.7987	58.43	0.0170	0.6606	0.0211	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1000	0.7987
		SUB TOTAL	21860.00	83.7172	34.44	28.8311	16.9291	58.72	0.9378	5.0064	0.4280	0.0431	0.0006	4.1733	3.5411	0.1458	0.0000	2.6529	16.9291
<b>MAHARASHTRA</b>																			

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

SI no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
1	TIRODA	ADANI POWER MAHARASHTRA LTD.	3300.00	14.1826	32.05	4.5451	3.5557	78.23	0.2627	1.2381	0.1244	0.0000	0.0000	0.0000	1.8199	0.1015	0.0012	0.0079	3.5557
2	MIHAN	Abhijeet MADC Nagpur Energy Pvt. Ltd.	246.00	0.0000	-	0.0000	0.0370	-	0.0000	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0370
3	ADANI DAHANU	ADANI ELECTRICITY MUMBAI LIMITED	500.00	1.9890	31.91	0.6346	0.6710	105.74	0.0000	0.0000	0.0000	0.3704	0.0000	0.0000	0.0000	0.0000	0.0000	0.3007	0.6710
4	DHARIWAL INFRASTRUCTURE Ltd.	DHARIWAL INFRASTRUCTURE LIMITED	600.00	2.7210	34.96	0.9511	0.9511	100.00	0.0811	0.8381	0.0013	0.0000	0.0000	0.0000	0.0148	0.0158	0.0000	0.0000	0.9511
5	GMR WARORA ENERGY LTD.	GMR WARORA ENERGY LTD.	600.00	2.3192	35.39	0.8208	1.0294	125.41	0.3165	0.2103	0.5025	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0294
6	BELA TPS	IDEAL ENERGY PROJECTS LIMITED	270.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
7	RATNAGIRI	JSW ENERGY LIMITED	1200.00	2.7286	13.19	0.3599	0.3600	100.02	0.0923	0.0871	0.0000	0.1497	0.0000	0.0310	0.0000	0.0000	0.0000	0.0000	0.3600
8	BHUSAWAL	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	1210.00	4.7446	40.19	1.9071	1.9251	100.94	0.1706	0.8522	0.1576	0.0000	0.0000	0.0000	0.0000	0.0000	0.0007	0.7440	1.9251
9	CHANDRAPUR	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	2920.00	11.5712	38.90	4.5013	0.8767	19.48	0.0717	0.8010	0.0000	0.0000	0.0000	0.0000	0.0009	0.0000	0.0000	0.0032	0.8767
10	KHAPARKHEDA	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	1340.00	6.2042	41.62	2.5825	1.8908	73.22	0.6069	0.0000	0.5399	0.0000	0.0000	0.7440	0.0000	0.0000	0.0000	0.0000	1.8908
11	KORADI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	2190.00	8.1874	36.13	2.9579	2.3997	81.13	0.8531	0.0674	0.8542	0.0000	0.0000	0.6182	0.0068	0.0000	0.0000	0.0000	2.3997
12	NASHIK	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	630.00	1.6781	39.75	0.6670	5.3617	803.91	4.8709	0.3315	0.1593	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.3617
13	PARLI	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	750.00	1.9664	39.95	0.7856	19.0800	2428.62	0.1286	0.1718	0.0000	0.1545	0.0000	0.0000	0.0000	0.0000	0.0550	18.5701	19.0800
14	PARAS	MAHARASHTRA STATE POWER GENERATION COMPANY LIMITED	500.00	1.9981	40.40	0.8072	1.2009	148.78	0.9449	0.0277	0.2283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.2009
15	MOUDA SUPER TPS	NTPC LTD.	2320.00	8.6862	39.21	3.4059	3.7864	111.17	0.4486	0.3853	1.5560	0.0000	0.0000	0.1171	0.1954	0.0034	0.0000	1.0807	3.7864
16	SOLAPUR SUPER TPS	NTPC LTD.	1320.00	3.2532	34.91	1.1357	0.8579	75.54	0.2807	0.5532	0.0000	0.0216	0.0000	0.0000	0.0000	0.0000	0.0000	0.0023	0.8579
17	AMARAVATI TPS	RATTANINDIA POWER LTD.	1350.00	5.9049	40.51	2.3922	1.9421	81.19	0.8225	0.0000	0.0000	0.0434	0.0000	0.0000	1.0687	0.0075	0.0000	0.0000	1.9421
18	TROMBAY	THE TATA POWER COMPANY LIMITED	750.00	2.3100	2.37	0.0548	0.0548	100.00	0.0079	0.0000	0.0000	0.0413	0.0000	0.0000	0.0000	0.0000	0.0015	0.0041	0.0548
19	BUTIBORI	VIDARBHA INDUSTRIES POWER LTD.	600.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
20	SAI WARDHA POWER Ltd., WARORA	SAI WARDHA POWER GENERATION PVT LTD.	540.00	1.4753	28.61	0.4221	0.4221	100.00	0.0359	0.3006	0.0000	0.0131	0.0000	0.0000	0.0000	0.0725	0.0000	0.0000	0.4221
		SUB TOTAL	23136.00	81.9200	35.32	28.9307	46.4023	160.39	9.9949	5.8644	4.1605	0.7941	0.0000	1.5102	3.1065	0.2006	0.0584	20.7129	46.4023
		ODISHA																	
1	Aarti Steels Limited	Aarti Steels Limited	80.00	0.4743	55.08	0.2612	0.2612	100.00	0.2026	0.0271	0.0007	0.0000	0.0000	0.0041	0.0268	0.0000	0.0000	0.0000	0.2612
2	GMR KAMALANGA TPP	GMR KAMALANGA ENERGY LTD.	1050.00	5.4578	42.58	2.3240	3.1018	133.47	0.8172	0.0706	2.1918	0.0000	0.0000	0.0000	0.0222	0.0000	0.0000	0.0000	3.1018
3	INDIAN METALS & FERRO ALLOYS LTD.	INDIAN METALS & FERRO ALLOYS LTD.	200.00	1.1271	46.14	0.5201	0.5201	100.00	0.1324	0.1174	0.0000	0.0000	0.0000	0.0000	0.2698	0.0000	0.0000	0.0006	0.5201

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

Sl no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization	
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
4	DERANG TPP	JINDAL INDIA THERMAL POWER LIMITED	1200.00	5.8576	41.00	2.4016	1.2906	53.74	0.2382	0.0017	0.0000	0.0000	0.0000	0.3846	0.6661	0.0000	0.0000	0.0000	0.0000	1.2906
5	ANGUL CAPTIVE POWER PLANT	JINDAL STEEL AND POWER LIMITED	810.00	2.9280	43.82	1.2830	0.4550	35.46	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.4180	0.0000	0.0000	0.0000	0.0000	0.4550
6	ROURKELA CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	120.00	0.9464	45.04	0.4263	0.3539	83.01	0.0889	0.0000	0.0905	0.0167	0.0000	0.0000	0.0730	0.0848	0.0000	0.0000	0.0000	0.3539
7	TALCHER - KANIHA	NTPC LTD.	3000.00	16.8814	40.74	6.8777	3.7592	54.66	0.1282	0.0000	1.4016	0.0000	0.0000	1.6763	0.1463	0.4069	0.0000	0.0000	0.0000	3.7592
8	NALCO, CPP ANGUL	NATIONAL ALUMINIUM COMPANY LIMITED	1200.00	5.6832	47.40	2.6936	2.3066	85.63	0.5719	0.0000	0.2597	0.0000	0.0000	0.1674	0.5344	0.7732	0.0000	0.0000	0.0000	2.3066
9	IB VALLEY	ODISHA POWER GENERATION CORPORATION LIMITED	1740.00	8.0133	44.74	3.5855	0.9812	27.37	0.0079	0.3529	0.0000	0.0000	0.0000	0.2663	0.3493	0.0000	0.0000	0.0048	0.9812	
10	VEDANTA LTD TPP	VEDANTA LIMITED	2400.00	10.2404	42.97	4.4006	5.2762	119.90	0.0463	0.1549	0.2030	0.0000	0.0000	0.0000	4.3834	0.0000	0.0000	0.4886	5.2762	
11	VEDANTA LTD CPP	VEDANTA LIMITED	1215.00	7.7857	4.45	0.3464	4.2202	1218.21	0.0131	0.0349	0.0143	0.0000	0.0000	0.0000	3.2730	0.0000	0.0000	0.8847	4.2202	
12	DARLIPALI SUPER TPS	NTPC LTD.	1600.00	6.5578	46.70	3.0627	1.7770	58.02	0.0000	0.0009	0.8427	0.0000	0.0000	0.0000	0.0000	0.0311	0.0000	0.9023	1.7770	
		SUB TOTAL	14615.00	71.9530	39.17	28.1828	24.3030	86.23	2.2837	0.7603	5.0043	0.0167	0.0000	2.4987	10.1623	1.2959	0.0000	2.2811	24.3030	
PUNJAB																				
1	RAJPURA TPS	NABHA POWER LIMITED	1400.00	5.4363	35.97	1.9556	1.9570	100.07	0.0871	1.3932	0.3025	0.1743	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.9570
2	GURU NANAKDEV TPS, BATHINDA	PUNJAB STATE POWER CORPORATION LIMITED	460.00	0.0000	-	0.0000	0.3045	-	0.0636	0.2408	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3045
3	GURU HARGOBIND TPP, LEHRA MOHABAT	PUNJAB STATE POWER CORPORATION LIMITED	920.00	1.3176	37.53	0.4945	0.3483	70.44	0.0570	0.2914	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3483
4	GURU GOBIND SINGH TPP, ROPAR	PUNJAB STATE POWER CORPORATION LIMITED	840.00	1.1760	36.06	0.4240	1.3636	321.62	0.0164	0.9254	0.1572	0.0000	0.0000	0.0000	0.2631	0.0000	0.0016	0.0000	1.3636	
5	GVK POWER (GOINDWALSAHIB) LTD.	PUNJAB STATE POWER CORPORATION LIMITED	540.00	1.3049	33.66	0.4392	0.3452	78.60	0.0870	0.2479	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0104	0.3452	
6	TALWANDI SABO POWER LTD	TALWANDI SABO POWER LTD.	1980.00	6.0191	39.89	2.4013	2.1702	90.38	0.7452	0.8311	0.4039	0.0157	0.0000	0.0000	0.1743	0.0000	0.0000	0.0000	2.1702	
		SUB TOTAL	6140.00	15.2538	37.46	5.7147	6.4889	113.55	1.0563	3.9296	0.8636	0.1900	0.0000	0.0000	0.4374	0.0000	0.0016	0.0104	6.4889	
RAJASTHAN																				
1	KAWAI	ADANI POWER RAJASTHAN LTD.	1320.00	4.8560	32.18	1.5625	1.5648	100.15	0.3637	1.0225	0.0000	0.0000	0.0000	0.0000	0.1786	0.0000	0.0000	0.0000	0.0000	1.5648
2	JSW ENERGY (BARMER) LIMITED	JSW ENERGY (BARMER) LIMITED	1080.00	6.0669	14.79	0.8972	0.8468	94.38	0.1997	0.5806	0.0000	0.0000	0.0000	0.0000	0.0000	0.0664	0.0000	0.0000	0.0000	0.8468
3	BARSINGSAR LIGNITE	NLC INDIA LIMITED	250.00	1.3712	13.93	0.1910	0.1910	100.00	0.0389	0.1204	0.0000	0.0000	0.0000	0.0000	0.0000	0.0317	0.0000	0.0000	0.0000	0.1910
4	CHHABRA	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1000.00	2.9575	32.54	0.9623	0.6222	64.65	0.1412	0.3711	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1098	0.6222	
5	SURATGARH	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1500.00	2.4975	39.18	0.9786	1.8438	188.42	0.0000	0.2608	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5830	1.8438	

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

Sl no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
6	KALISINDH SUPER TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1200.00	4.3679	32.21	1.4069	1.4298	101.62	0.1317	0.6142	0.0000	0.0000	0.0000	0.0000	0.1131	0.0000	0.0000	0.5708	1.4298
7	VS LIGNITE POWER PRIVATE LTD	VS LIGNITE POWER PRIVATE LIMITED	135.00	0.9105	24.88	0.2265	0.2265	100.00	0.0304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1961	0.2265
8	KOTA SUPER THERMAL POWER STATION	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1240.00	4.9127	34.75	1.7071	2.0508	120.13	0.5615	1.2824	0.1226	0.0009	0.0000	0.0000	0.0000	0.0000	0.0000	0.0834	2.0508
9	GIRAL TPS	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	250.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
10	CHHABRA SUPER CRITICAL TPP	RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED	1320.00	3.2046	31.05	0.9949	0.8180	82.22	0.1007	0.3962	0.0000	0.0000	0.0000	0.0000	0.3211	0.0000	0.0000	0.0000	0.8180
		SUB TOTAL	9295.00	31.1446	28.66	8.9270	9.5937	107.47	1.5680	4.6482	0.1226	0.0009	0.0000	0.0000	0.6128	0.0981	0.0000	2.5431	9.5937
	TAMIL NADU																		
1	MUTIARA	COASTAL ENERGEN PVT. LTD	1200.00	0.8012	8.41	0.0674	0.0704	104.47	0.0437	0.0148	0.0000	0.0000	0.0000	0.0000	0.0119	0.0000	0.0000	0.0000	0.0704
2	CHEMPLAST LIMITED TPS	CHEMPLAST LIMITED	48.50	0.2396	8.00	0.0192	0.0192	100.26	0.0192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0192
3	IL & FS TAMIL NADU POWER COMPANY LTD.	IL & FS TAMIL NADU POWER COMPANY LIMITED	1200.00	1.6653	4.60	0.0766	0.0766	100.00	0.0000	0.0766	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0766
4	JSW STEEL LIMITED CPP-II	JSW STEEL LIMITED	90.00	0.1433	6.57	0.0094	0.0094	100.30	0.0094	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0094
5	NEVELLI - I EXPN	NLC INDIA LIMITED	420.00	0.3302	5.89	0.0195	0.0195	100.00	0.0035	0.0102	0.0000	0.0000	0.0000	0.0011	0.0001	0.0024	0.0022	0.0000	0.0195
6	NEVELLI - II	NLC INDIA LIMITED	1470.00	10.7011	5.92	0.6339	1.5598	246.09	0.2457	0.1825	0.8675	0.0000	0.0000	0.0175	0.0000	0.1882	0.0000	0.0584	1.5598
7	NEVELLI - II EXPN	NLC INDIA LIMITED	500.00	1.9771	6.75	0.1334	0.1304	97.79	0.1006	0.0024	0.0000	0.0000	0.0000	0.0030	0.0000	0.0223	0.0000	0.0021	0.1304
8	NLC TAMILNADU POWER Ltd	NLC TAMIL NADU POWER LIMITED	1000.00	3.0423	37.42	1.1385	1.1385	100.00	0.2755	0.8542	0.0088	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.1385
9	VALLUR	NTPC TAMILNADU ENERGY COMPANY LTD (NTECL) (NTPC-JV)	1500.00	5.9563	41.08	2.4466	1.9107	78.10	0.2083	0.4553	0.4553	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7918	1.9107
10	OPG POWER GENERATION PRIVATE LIMITED	OPG POWER GENERATION PRIVATE LIMITED	414.00	0.9740	10.57	0.1030	0.1030	100.00	0.0206	0.0824	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1030
11	CUDDALORE - TAQA	TAQA NEVELLY POWER CO.PVT. LTD.	250.00	1.5391	4.95	0.0761	0.0639	83.98	0.0128	0.0390	0.0000	0.0000	0.0000	0.0000	0.0000	0.0122	0.0000	0.0000	0.0639
12	TUTICORIN	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	1050.00	4.2787	35.33	1.5117	0.6393	42.29	0.1288	0.5063	0.0000	0.0000	0.0000	0.0000	0.0042	0.0000	0.0000	0.0000	0.6393
13	METTUR-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	840.00	3.8621	36.52	1.4106	1.4286	101.28	0.2400	0.1063	0.0000	0.0000	0.0000	0.0871	0.0581	0.0000	0.0000	0.9372	1.4286
14	METTUR-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	600.00	2.1625	35.29	0.7632	0.7632	100.00	0.0213	0.4277	0.0000	0.0000	0.0000	0.3142	0.0000	0.0000	0.0000	0.0000	0.7632
15	NORTH CHENNAI-I	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	630.00	2.4931	40.86	1.0188	1.4507	142.40	0.0466	0.0928	1.2389	0.0724	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.4507
16	NORTH CHENNAI-II	TAMIL NADU GENERATION AND DISTRIBUTION LIMITED	1200.00	3.6840	40.42	1.4890	1.5591	104.71	0.3987	0.7054	0.4550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.5591
17	NEVELLI NEW THERMAL POWER STATION	NLC INDIA LIMITED	1000.00	6.1809	5.06	0.3127	0.3127	100.00	0.0807	0.1847	0.0000	0.0003	0.0000	0.0123	0.0000	0.0347	0.0000	0.0000	0.3127
		SUB TOTAL	13412.50	50.0306	22.44	11.2293	11.2550	100.23	1.8555	3.7404	3.0256	0.0727	0.0000	0.4351	0.0743	0.2597	0.0022	1.7896	11.2550

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

SI no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
<b>TELANGANA</b>																			
1	RAMAGUNDAM SUPER	NTPC LTD.	2600.00	10.8164	36.41	3.9383	5.5501	140.92	0.8766	0.8253	2.1044	0.0000	0.0000	0.0887	0.0139	0.4412	0.0000	1.2000	5.5501
2	SINGARENI TPP	THE SINGARENI COLLIERIES COMPANY LIMITED	1200.00	5.3570	36.06	1.9320	2.2660	117.29	0.4216	0.6827	0.2138	0.4192	0.0000	0.0000	0.0198	0.4278	0.0000	0.0811	2.2660
3	RAMAGUNDAM 'B'	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	62.50	0.2080	42.34	0.0881	0.2298	260.94	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2298	0.2298
4	KOTHAGUDEM-V	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	500.00	2.4468	47.94	1.1731	0.6750	57.54	0.0491	0.2866	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3393	0.6750
5	KOTHAGUDEM-VI	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	500.00	1.7673	38.26	0.6761	0.4390	64.93	0.0249	0.3464	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0091	0.0586	0.4390
6	KOTHAGUDEM-VII	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	800.00	2.9038	32.61	0.9470	0.5190	54.80	0.1736	0.3453	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5190
7	KAKATIYA (Stage-I)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	500.00	2.0798	37.38	0.7773	0.6475	83.30	0.4559	0.1621	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0296	0.6475
8	KAKATIYA (Stage-II)	TELANGANA STATE POWER GENERATION CORPORATION LIMITED	600.00	2.0443	37.19	0.7602	0.6493	85.42	0.2977	0.1754	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1763	0.6493
9	SITAPURAM TPS	ZUARI CEMENT LIMITED	43.00	0.2017	50.41	0.1017	0.1017	100.00	0.0000	0.0816	0.0000	0.0000	0.0000	0.0000	0.0201	0.0000	0.0000	0.0000	0.1017
SUB TOTAL			6805.50	27.8251	37.35	10.3937	11.0774	106.58	2.2993	2.9053	2.3182	0.4192	0.0000	0.0887	0.0539	0.8690	0.0091	2.1147	11.0774
<b>UTTAR PRADESH</b>																			
1	BARKHERA	Bajaj Energy Limited	90.00	0.1599	35.38	0.0566	0.0567	100.20	0.0052	0.0507	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000	0.0000	0.0000	0.0567
2	KHAMBHAR KHERA	Bajaj Energy Limited	90.00	0.1588	32.58	0.0517	0.0517	99.93	0.0059	0.0435	0.0000	0.0000	0.0000	0.0000	0.0023	0.0000	0.0000	0.0000	0.0517
3	KUNDARKI	Bajaj Energy Limited	90.00	0.2127	34.83	0.0741	0.0742	100.11	0.0074	0.0625	0.0000	0.0000	0.0000	0.0000	0.0043	0.0000	0.0000	0.0000	0.0742
4	MAQSOODAPUR	Bajaj Energy Limited	90.00	0.1565	34.86	0.0545	0.0545	99.90	0.0045	0.0499	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0545
5	UTRAULA	Bajaj Energy Limited	90.00	0.1891	33.60	0.0635	0.0634	99.80	0.0067	0.0567	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0634
6	LALITPUR	LALITPUR POWER GENERATION COMPANY LIMITED	1980.00	5.8691	35.68	2.0943	1.8855	90.03	0.0000	1.3095	0.0000	0.0000	0.0000	0.0000	0.5760	0.0000	0.0000	0.0000	1.8855
7	ANPARA 'C' TPS	LANCO ANPARA POWER LIMITED	1200.00	5.2435	32.61	1.7101	0.2191	12.81	0.0170	0.2022	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.2191
8	MEJA TPP	MEJA URJA NIGAM PRIVATE LIMITED (NTPC-JV)	1320.00	5.0488	36.10	1.8226	1.3207	72.47	0.0086	0.9305	0.0000	0.0000	0.0000	0.0000	0.0008	0.0000	0.0000	0.3808	1.3207
9	DADRI	NTPC LTD.	1820.00	3.6991	34.75	1.2853	1.2869	100.13	0.2347	0.9688	0.0000	0.0000	0.0000	0.0000	0.0537	0.0000	0.0000	0.0298	1.2869
10	SINGRAULI	NTPC LTD.	2000.00	9.4205	32.11	3.0245	1.7404	57.54	0.0092	0.0002	0.3390	0.0000	0.0000	0.1380	0.0000	0.0000	0.0000	1.2540	1.7404
11	RIHAND	NTPC LTD.	3000.00	13.4828	27.51	3.7085	2.1983	59.28	0.0948	0.1511	0.7721	0.0000	0.0000	0.4186	0.5318	0.0000	0.0000	0.2300	2.1983
12	FEROZE GANDHI UNCHAHAHAR	NTPC LTD.	1550.00	5.5278	37.72	2.0848	3.3188	159.19	0.0611	0.6859	1.7762	0.1644	0.0000	0.0000	0.0000	0.0000	0.0000	0.6313	3.3188
13	TANDA	NTPC LTD.	1760.00	5.4560	41.36	2.2564	3.0558	135.43	0.0045	0.6576	1.7966	0.0000	0.0000	0.0000	0.0971	0.0000	0.0000	0.5000	3.0558
14	PRAYAGRAJ TPS	PRAYAGRAJ POWER GENERATION COMPANY LTD.	1980.00	7.2152	33.53	2.4194	2.1075	87.11	0.0003	1.3473	0.0000	0.0000	0.0000	0.3419	0.1306	0.2875	0.0000	0.0000	2.1075

## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

Sl no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization	
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	(MT) $\Sigma_{(10)}$ to (19)
15	ROSA TPP	ROSA POWER SUPPLY COMPANY LIMITED	1200.00	3.6516	36.38	1.3284	1.0491	78.98	0.0164	0.8086	0.0000	0.0002	0.0000	0.0000	0.2112	0.0000	0.0000	0.0128	1.0491	
16	ANPARA 'A' & 'B'	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	2630.00	11.3914	35.05	3.9928	0.1048	2.62	0.0001	0.0860	0.0000	0.0000	0.0000	0.0098	0.0088	0.0000	0.0000	0.0000	0.1048	
17	HARDUAGANJ	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	1270.00	1.2795	43.13	0.5519	1.1912	215.84	0.0349	0.1393	0.0000	0.0000	0.0000	0.5000	0.5169	0.0000	0.0000	0.0000	1.1912	
18	OBRA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	1000.00	3.4499	39.83	1.3742	0.0755	5.49	0.0006	0.0749	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0755	
19	PARICHHA	UTTAR PRADESH RAJYA VIDYUT UTPADAN NIGAM LIMITED	920.00	2.6527	41.71	1.1066	0.7457	67.39	0.1187	0.5832	0.0071	0.0000	0.0000	0.0000	0.0367	0.0000	0.0000	0.0000	0.7457	
		SUB TOTAL	24080.00	84.2649	34.49	29.0602	20.6000	70.89	0.6306	8.2082	4.6910	0.1645	0.0000	1.4083	2.1712	0.2875	0.0000	3.0387	20.6000	
	<b>WEST BENGAL</b>																			
1	Budge Budge Generating Station	CESC Ltd.	750.00	3.2350	33.44	1.0818	1.0818	100.00	0.0413	0.8898	0.0000	0.0000	0.0000	0.0000	0.1506	0.0000	0.0000	0.0000	1.0818	
2	Southern Generating Station	CESC Ltd.	135.00	0.1312	24.16	0.0317	0.0317	100.00	0.0029	0.0245	0.0000	0.0001	0.0000	0.0000	0.0042	0.0000	0.0000	0.0000	0.0317	
3	Titagarh Generating Station	CESC Ltd.	240.00	0.0000	-	0.0000	0.0000	-	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
4	DURGAPUR	Damodar Valley Corporation	210.00	0.2507	51.25	0.1285	0.0579	45.03	0.0000	0.0044	0.0000	0.0000	0.0000	0.0000	0.0535	0.0000	0.0000	0.0000	0.0579	
5	MEJIA	Damodar Valley Corporation	2340.00	9.6699	49.35	4.7724	3.9267	82.28	0.2149	1.2928	0.0000	0.0000	0.0000	0.0000	0.0000	2.4190	0.0000	0.0000	3.9267	
6	DURGAPUR STEEL	Damodar Valley Corporation	1000.00	4.1214	46.57	1.9194	1.8460	96.17	0.2927	0.5854	0.0609	0.0000	0.0000	0.0000	0.8899	0.0171	0.0000	0.0000	1.8460	
7	RAGHUNATHPUR	Damodar Valley Corporation	1200.00	3.9377	46.44	1.8285	0.1231	6.73	0.0082	0.1150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1231	
8	THE DURGAPUR PROJECTS POWER STATION	THE DURGAPUR PROJECTS LIMITED	550.00	1.7782	40.70	0.7238	0.4812	66.48	0.0000	0.4660	0.0000	0.0000	0.0000	0.0000	0.0151	0.0000	0.0000	0.0000	0.4812	
9	HALDIA ENERGY LIMITED	HALDIA ENERGY LIMITED	600.00	2.9388	37.22	1.0940	1.0940	100.00	0.0309	0.9836	0.0000	0.0000	0.0000	0.0000	0.0795	0.0000	0.0000	0.0000	1.0940	
10	DISHARGARH POWER STATION	INDIA POWER CORPORATION LTD.	12.00	0.0328	50.68	0.0166	0.0166	100.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0166	0.0000	0.0000	0.0166	
11	DURGAPUR CPP	NTPC - SAIL POWER COMPANY LIMITED (NTPC-JV)	120.00	0.7292	38.04	0.2774	0.2906	104.75	0.1373	0.0116	0.0000	0.0000	0.0000	0.0000	0.1417	0.0000	0.0000	0.0000	0.2906	
12	FARAKKA SUPER	NTPC LTD.	2100.00	8.1047	34.40	2.7881	3.8222	137.09	0.0372	0.2481	2.7359	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.8010	3.8222	
13	KOLAGHAT	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1260.00	3.3744	43.92	1.4819	1.6494	111.30	0.0803	0.5587	0.1864	0.0000	0.0000	0.0000	0.8240	0.0000	0.0000	0.0000	1.6494	
14	SAGARDIGHI	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1600.00	7.2902	32.37	2.3600	1.8778	79.57	0.0760	0.9787	0.0000	0.0000	0.0000	0.0000	0.8231	0.0000	0.0000	0.0000	1.8778	
15	BANDEL	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	335.00	1.3854	42.12	0.5836	0.6317	108.24	0.0162	0.3249	0.1652	0.0000	0.0000	0.0000	0.1254	0.0000	0.0000	0.0000	0.6317	



## ANNEXURE - II

## FLY ASH GENERATION AND ITS UTILIZATION AT COAL / LIGNITE BASED THERMAL POWER STATIONS IN THE COUNTRY FOR THE YEAR 2021-22 (APRIL - 2021 TO MARCH - 2022) (State WISE)

Sl no.	Name of TPS	Power Utility & State	Installed Capacity	Coal Consumed	Ash Content of Coal	Fly Ash Generation	Fly Ash Utilization	Percentage utilization	In the manufacture 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 Dams Construction	In Ash Dyke Raising	In the Reclamation of Low lying Area	In Mine Filling	In Agriculture / Waste Land Development	Others	Total Utilization
			(MW)	MT	%	MT	MT	%	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
16	SANTALDIH TPS	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	500.00	2.7777	50.49	1.4024	0.7772	55.42	0.0321	0.5393	0.0000	0.0000	0.0000	0.0774	0.1284	0.0000	0.0000	0.0000	0.7772
17	BAKRESWAR	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1050.00	5.1987	33.68	1.7510	0.4807	27.45	0.0504	0.3767	0.0000	0.0000	0.0000	0.0000	0.0402	0.0134	0.0000	0.0000	0.4807
		SUB TOTAL	14002.00	54.9561	40.47	22.2412	18.1884	81.78	1.0203	7.3994	3.1484	0.0001	0.0000	0.0774	3.2757	2.4662	0.0000	0.8010	18.1884
		GRAND TOTAL	213620.50	759.0151	35.68	270.8216	259.8628	95.95	31.6237	68.8283	45.9899	2.2191	0.0006	14.8201	35.5694	18.3799	0.1541	42.2778	259.8628