

**CENTRAL ELECTRICITY REGULATORY COMMISSION**  
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(Tele No.23353503 FAX No.23753923)

**Petition No. 172/MP/2016**

**Dated the 28<sup>th</sup> May, 2018**

**Notice**

**Subject: Petition for recovery of additional expenditure incurred due to sharing of transportation cost of fly ash consequent to Ministry of Environment Forest and Climate Notification dated 25.1.2016 as Change in Law event.**

The Commission vide Record of Proceedings for the hearing dated 20.7.2017 directed the Chief (Engineering) and Chief (Finance) of the Commission to examine the technical issues involved with regard to the ash utilization in the light of the Ministry of Environment Forest and Climate Notification dated 25.1.2016.

2. A copy of the reported submitted by Chief (Engineering) and Chief (Finance) is enclosed for information of all concerned.
3. The Petition shall be listed for hearing in due course.

Sd/-  
**(Sanoj Kumar Jha)**  
Secretary

Central Electricity Regulatory Commission

(Engineering Division)

Subject: Report on ash generation, ash utilization and stock of ash in NTPC stations- Scope of delivery of ash as per the MOEF notification dated 25.1.2016 and provisions of allowing the ash transportation cost under change in law.

The Ministry of Environment Forest & Climate Change, Govt on 25.01.2016 notified amendments & made in the MOEF Environment Forest & Climate notification dated 14.09.1999 which inter-alia stipulated as follows: -

Every coal or lignite based thermal power plant (including captive and or co-generating stations) shall, within three months from the date of notification, upload on their website the details of stock of each type of ash available with them and thereafter shall update the stock position at least once a Month. Every coal or lignite based thermal power plants shall install dedicated dry ash silos having separate access roads so as to ease the delivery of fly ash.

(a) The cost of transportation of ash for road construction projects or for manufacturing of ash based products or use as soil conditioner in agriculture activity with radius of 100 km of any coal based power plant shall be borne by such coal based thermal power plant and the cost of transportation beyond the radius of 100 km and up to 300 km shall be shared equally between the user and the coal based thermal power plant.

(b) The coal based thermal power plants shall within radius of 300 km bear the entire cost of transportation of ash to the site of road construction projects under *Pradhan Mantri Gramin Sadak Yojna* (herein referred to as "**PMGSY**") and asset creation programmes of the Government involving construction of buildings, road, dams and embankments.

(c) Subject to the rules made under the Environment (Protection) Act, 1986, (29 of 86) reclamation of sea shall be permissible method of utilization of fly ash and the coal or lignite based TPS located in coastal district shall support, assist or directly engage into construction of shore line protection measures.

(d) Coal based thermal power plants shall comply with the above provisions in addition to 100% utilization of fly ash generated by them before 31st December, 2017.

The time period to comply with the above provisions by all concerned authorities is 31<sup>st</sup> December, 2017. The coal or lignite based thermal power plants shall comply with the above provision in addition to 100% utilization of fly ash generated by them before 31<sup>st</sup> December, 2017

2. NTPC Limited filed the Petition No. 172/MP/2016 on 02.09.2016 for recovery of additional Expenditure incurred due to sharing of transportation cost of fly ash consequent to Ministry of Environment and Forest, Government of India Notification dated 25.01.2016 as 'Change in law event.

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3. In this context it is to mention that earlier MoEF had issued gazette notification for utilization of ash produced by thermal power plants in Sep. 1999 and amendments to this notification had been issued in August 2003 and Nov. 2009. As per the stipulations of these notifications, all coal based thermal power plants commissioned before Nov. 2009 had to achieve 100% ash utilization. In these notifications directives have also been given to building construction agencies, road embankment construction agencies and low lying areas development works for mandatory use of ash and ash based products work within 100 km of any thermal power plants. As per the stipulations of these notifications all the existing thermal generating stations were required to achieve the 100% ash utilization within five years of the issue of these notifications and the new thermal generating stations, commissioned after the issue of these notifications required to achieve the 100% ash utilization within four years of commissioning. But the generator was not mandatorily bear the transportation cost up to certain distance as specified in the MoEF Notification dated 25.01.2016.

4. The Commission after hearing the Petition No. 172/MP/2016 on 20.7.2017 directed the staff of the Commission to convene a meeting of the petitioner and respondent to examine the technical issues and submit the report. A meeting was held on 9.8.2017 at CERC office to discuss the issues involved in it. The representative from the NTPC, MSEDCL and GRIDCO participated in the meeting. After the deliberations NTPC, MSEDCL and GRIDCO were asked to furnish the following information for the period 1999-2003, 2004-2009, 2010-2016 and 2016 to till date:

- i.) Station-wise details of percentage of ash utilization such as for brick manufacturing for road construction projects, for soil conditioner in agricultural activities, etc. since 14.9.1999.
- ii) Station-wise quantum of ash generated, ash utilized and ash accumulated at generating stations since 14.9.1999.
- iii) Station-wise details of expenditure incurred on ash utilization and where it is booked.
- iv) Station-wise revenue earned from the sale of Ash/ash products and how it is accounted for.
- v) Station-wise expenditure on transportation of ash utilization or ash transported by NTPC to its own brick manufacturing plant or use for road or building etc. and where it was booked in accounts.

5. NTPC vide letter dated 20.09.2017 has furnished information with respect to ash generation, ash utilization, revenue earned, from sale of ash station-wise and year-wise since 1999 to 2017-18. Table below have been provided which depicts the total ash generation from all NTPC generating stations, ash utilized in different forms from 1999 to 2017-18 and revenue earned by selling ash / ash products from 2009-10 to 2017-18.

21/12/17 2/9/17



5.1 Details of fly ash generation, utilization and storage in pond for all the generating stations from 1999 to 2017-18(up to June 2017).

Table-I

ACTUAL USAGE – APRIL 1999 TO JUNE 2017 (All Figures are in Lakh Tonnes)			
Total Ash production in NTPC	Total Ash utilization	% age ash utilization	Ash Disposed to pond
7784.87	3405.77	43.75	4379.14

5.2 Ash Utilization for the period from 2009-2017.

Table-II

(All Figures are in Lakh Tonnes)

Year	Ash Produced	Land Development	Issued to Cement & other ind.	Ash Dyke Raising	Bricks	Roads/rail embankment	Mine filling	Others	Total Ash Utilization	% Ash Utilization.	Ash Disposed to Pond
2009-10	462.19	78.43	108.52	35.15	1.03	13.41	11.28	28.26	276.08	59.73	186.12
2010-11	472.05	63.86	98.79	36.14	0.79	14.77	11.8	34.14	260.28	55.14	211.77
2011-12	500.5	68.74	90.63	42.2	0.96	17.97	11.68	43.13	275.31	55.01	225.19
2012-13	562.88	40.9	107.41	86.01	1.27	18.46	13.35	42.3	309.7	55.02	253.18
2013-14	578.26	24.71	71.87	75.43	22.95	7.22	18.04	33.51	253.74	43.88	324.51
2014-15	591.53	6.49	67.73	67.61	28.03	8.13	20.89	34.91	233.79	39.52	357.74
2015-16	588.28	14.37	58.25	68.58	37.96	6.26	24.15	33.66	243.23	41.35	345.05
2016-17	584.6	29.72	53.37	80.98	42.51	30.24	26.55	32.33	295.69	50.58	288.91
Total	4340.29	327.22	656.57	492.1	135.5	116.46	137.74	282.24	2147.82		2192.47
%age	100.00	7.54	15.13	11.34	3.12	2.68	3.17	6.50	49.49	49.49	50.51

It could be observed from above tables I & II that the % age of ash utilization in NTPC stations has remained in the range of about 40% to 60% during 2009-2017 and average % age of ash utilization during the period 2009-17 has been about 50%. The average fly ash utilization had remained about 43% during the period 1999 -2017. Further it is observed that the %age of ash issued to Cement Ind. & other has been 21.63% (cement 15.13% and others 6.50%) of the total ash produced by the NTPC.

There is lot of *balance* ash remains with NTPC which could be used as per the directives of MOEF notification dated 25.1.2016 and for that matter NTPC has to incur transportation expenditure. NTPC has earned revenue of Rs. 474.20 Cr. from 2009-10 to 2014-15 as given below. As per Para 6 of MOEF Notification no.2804 (E) dated 03.11.09, this revenue can only be utilized for promoting fly ash utilization, hence part of transportation expenditure, as above, can be met from this revenue.

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5.3 Revenue earned by selling Ash from 2009-2015 (year wise).

**Table-III**

**Revenue ( Rs in Crores)**

2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
13.2	58.0	84.3	108.8	122.5	87.40	474.2

5.4 The NTPC has further submitted the station wise ash sale details for the period 1.1.2015 to 31.8.2017 as below.

Ash Sale details for the period from 01.01.2015 to 31.08.2017 (year-wise)

Table-IV

S. No.	Station	2014-15 (01.01.2015 to 31.03.2015)		2015-16 (01.04.2015 to 31.03.2016)		2016-17 (01.04.2016 to 31.03.2017)		2017-18 (01.04.2017 to 31.08.2017)	
		Qty Sold (in LMT)	Revenue (Rs in Crores)	Qty Sold (in LMT)	Revenue (Rs in Crores)	Qty Sold (in LMT)	Revenue (Rs in Crores)	Qty Sold (in LMT)	Revenue (Rs in Crores)
1.	Badarpur	0.64	1.69	2.37	9.96	1.80	9.25	0.80	4.61
2.	Dadri	3.38	14.48	12.44	58.31	10.67	50.06	4.54	20.63
3.	Farakka	1.13	1.46	1.49	6.17	2.61	6.09	1.28	2.60
4.	Unchahar	2.70	4.74	11.38	21.27	10.09	19.64	4.32	8.21
5.	Kahalgaon	1.21	1.45	6.53	8.66	6.53	11.29	1.63	2.82
6.	Mouda	-	-	-	-	3.00	0.33	0.82	0.08
7.	Ramagundam	2.14	1.56	9.96	7.55	8.12	6.21	1.33	1.01
8.	Sipat	-	-	1.00	0.05	4.58	0.28	1.77	0.18
9.	Tanda	0.83	0.83	3.88	5.23	3.30	8.77	1.45	7.42
	<b>Total</b>	<b>12.03</b>	<b>26.21</b>	<b>49.04</b>	<b>117.21</b>	<b>50.70</b>	<b>111.91</b>	<b>17.95</b>	<b>47.56</b>

6. MSEDCL and GRIDCO has not submitted any details regarding ash production, ash utilization, revenue earned through sale of ash etc. to the Commission.

7. The Commission in the meantime vide order dated 19.12.2017 in Petition No 101/MP/2016 filed by DB Power Ltd, in case of case-I (competitive bidding) projects, while dealing with the issue of expenditure pertaining to the Ash utilization claimed under 'Change in Law' has observed that the additional cost towards fly ash transportation is on account of amendment to the Notification dated 25.1.2016 issued by the Ministry of Environment and Forests, Govt. of India, the expenditure is admissible under the Change in law in principle. The Commission has observed as follows.

"105. We have considered the submissions of the Petitioner, Rajasthan Discom & Prayas and perused the documents on record. The petitioner vide its affidavits dated 24.07.2017 and 4.9.2017 has submitted the details regarding expenditure towards Fly Ash Transportation along with revenue

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earned and the contract agreement with agencies who have procured ash from the plant . The petitioner has also submitted the copies of bills, debit notes/ or invoices. As on cut-off date, there was no direction with regard to utilization of fly ash under Environment (Protection) Act, 1986. Subsequently, Ministry of Environment and Forests, Govt. of India vide its Notification dated 3.11.2009 issued the directions regarding utilisation of fly ash under the Environment (Protection) Act, 1986. The Ministry of Environment and Forests, Govt. of India vide its Notification No. S.O. 254 (E) dated 25.1.2016 amended the Environment (Protection) Rules, 1986 and imposed the additional cost towards fly ash transportation. Relevant portion of said Rules is extracted as under:

*(10) The cost of transportation of ash for road construction or for manufacturing of ash based products or use as soil conditioner in agriculture activity within a radius of hundred kilometers from a coal or lignite based power plant shall be borne by such coal or lignite based thermal power plant and cost of transportation beyond the radius of hundred kilometers and up to three hundred kilometers shall be shared between the user and the coal or lignite based thermal power plant equally.*

106. As per Article 10.1.1 of the PPA, any enactment, bringing into effect, adoption, promulgation, amendment, modification or repeal, of any law is covered under Change in law if this results in additional recurring/ non-recurring expenditure by the seller or any income to the seller. Since, the additional cost towards fly ash transportation is on account of amendment to the Notification dated 25.1.2016 issued by the Ministry of Environment and Forests, Govt. of India, the expenditure is admissible under the Change in law in principle. However, the admissibility of this claim is subject to the following conditions:

- a) Award of fly ash transportation contract through a transparent competitive bidding procedure so that a reasonable and competitive price for transportation of ash/ Metric Tonne is discovered;
- b) Any revenue generated/ accumulated from fly ash sales, if CoD of units/ station was declared before the MoEF notification dated 25.01.2016, shall also be adjusted from the relief so granted;
- c) Revenue generated from fly ash sales must be maintained in a separate account as per the MoEF notification and;
- d) Actual expenditure incurred as claimed should be duly certified by auditors and the same should be kept in possession so that it can be produced to the beneficiaries on demand."

8. The tariff of the NTPC is determined by Commission on cost plus basis as per the terms and conditions of tariff Regulations, 2014. The tariff regulations, 2014 has provisions for additional capitalization after the cut-off date of the generating station under Change in Law as per Regulation 14 (2) (ii) & 14 (3) (ii) which is produced below.

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(ii) Change in Law or Compliance of any existing law.

Change in Law has been defined in the Tariff Regulations, 2014 as follows:



“Change in Law means occurrence of any of the following events:

- a) enactment, bringing in to effect or promulgation of any new Indian law; or
- b) adoption, amendment, modification, repeal or re-enactment of any existing law; or
- c) change in interpretation or application of any Indian Law by a competent court, tribunal or any Government Instrumentality which is the final authority under law for such interpretation or application; or
- d) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or
- e) coming in to force or change in any bilateral or multilateral agreement/treaty between the government of India and any other Sovereign government having implication for the generating station or the transmission system regulated under these Regulations.”


Under Regulation 14(3) (ii) of the Tariff Regulations 2014, the capital expenditure in respect of the existing generating stations incurred or projected to be incurred after the cut-off date on account of “Change in law or compliance of any existing law” is admissible in tariff subject to prudence check.

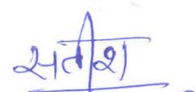
Ministry of Environment, Forests and climate change notification dated 25.1.2016 is an amendment to the earlier notification dated 14.9.1999 which is an existing Indian Law.

9. Since the additional cost claimed by the NTPC towards fly ash transportation is on account of amendment to the Notification dated 25.1.2016 issued by the Ministry of Environment and Forests, Govt. of India, the expenditure is admissible under the Change in law and same may be considered for allowance as per the conditions specified by the Commission in order dated 19.12.2017 in Petition No.101/MP/2016 as mentioned above. However, the actual expenditure may be considered on station to station basis after due prudence check.

10. The Committee recommends that the information in respect of following aspects may be furnished by NTPC separately for consideration of the Commission to take an appropriate view.

- a) The company’s Ash disposal policy and accounting policy in this regard.
- b) Whether the cost in respect of ash disposal is being claimed as part of O&M, if so, the details thereof.
- c) Whether the capital cost allowed for Ash Dyke and disposal of ash in ash dyke is covered under the provisions of the circular dated 25.01.2016 and will be treated as part of 100% disposal of ash.
- d) Whether Ash mound created in Dadri should be treated as Ash disposal or not.

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16.5.18

  
16.5.2018