



F. No.11/86/2017-Th.II (C.No 238797)

Government of India

Ministry of Power

Shram Shakti Bhawan, Rafi Marg,
New Delhi, dated the 16th June, 2023.

To,

1. Principal Secretary/Secretary in-charge of Energy/Power
Departments, All States/UTs
2. Chairman, CEA
3. CMDs of all CGSs/IPPs

**Subject: Modification of Revised Policy for Biomass Utilization for
Power Generation through Co-firing in Coal based Power
Plants dated 08.10.2021- reg.**

Sir/Madam,

I am directed to refer to this Ministry's "Revised Policy for Biomass Utilization for Power Generation through Co-firing in Pulverized Coal Fired Boilers" issued in 08.10.2021 and its Addendum issued on 03.05.2023(copies enclosed).

2. Keeping in view that the supply chain of biomass-based pellets is still in the process of development in the country and to further promote use of biomass pellets in coal based thermal power plants, the above Policy stands further modified as under:

(a) Existing Clause No.3- (i), (ii), (iii) to be replaced by the following clauses:

3(i) All coal based thermal power plants of power generation utilities with **bowl mills**, shall on annual basis mandatorily use minimum 5% blend of biomass pellets made, primarily , of agro residue along with coal with effect from FY 2024-25. The obligation shall increase to 7% with effect from FY 2025-26.

3(ii) All coal based thermal power plants of power generation utilities with **ball & race mills**, shall on annual basis mandatorily use 5% blend of biomass pellets(torrefied only) made, primarily, of agro residue along with coal with effect from FY 2024-25. The obligation shall increase to 7% with effect from FY 2025-26.

3(iii) All coal based thermal power plants of power generation utilities with **ball & tube mills**, shall on annual basis mandatorily use 5% blend of torrefied biomass pellets with volatile content below 22%, primarily made of agro residue along with coal with effect from FY 2024-25.

(b) Addition of Para 5, after Para 4 of ibid policy, as under:

A Committee shall be constituted under the leadership of CEA with members from MNRE, MoAFW, MoPNG, Forum of Regulators, SAMARTH, State Governments, Power Utilities etc. for **price benchmarking of biomass pellets** considering the business viability, impact on electricity tariff and efficient & faster pellet procurement by power utilities.

The Price benchmarking would be carried out region-wise for a period of 5 years with the provision for periodic escalation. The benchmark price will not include the transportation cost from the pellet manufacturing unit to the Thermal Power Plants (TPPs). TPPs shall determine the transportation cost from pellets manufacturing units to TPPs in a fair and transparent manner. The procurement of benchmark-priced pellets shall be carried out on a first-come, first-serve basis. If TPPs are unable to procure biomass pellets at the benchmark price, they have the option to go for a short-term tender. However, it is important for TPPs to ensure that the price discovered in the short-term tender is determined in a fair and transparent manner. The price discovered should also be comparable to the benchmarked prices. The recommendation of Price Benchmarking Committee will be effective from 01.01.2024. The existing tendering process shall continue till the implementation of the Benchmarking Committee recommendations. Meanwhile, the power utilities shall go for short term tenders for meeting the immediate requirement of biomass pellets for their TPPs.

(c) Addition of Para 6, after Para 5 of ibid policy, as under

It has been observed that the availability of torrefied biomass pellets is much lower in the market. Therefore, those power plants which can

use non-torrefied pellets should utilize the same only. Hence, TPPs having Bowl mill will issue tenders for non-torrefied biomass pellets only, while TPPs having either Ball & Race mill or Ball & Tube mill will issue tenders for Torrefied biomass pellets. This practise will continue till further notification on this issue.

3. This issues with the approval of Hon'ble Minister of Power & NRE.

Yours sincerely

Encl: as above.



(J.Misra)

Under Secretary to the Government of India

Tele: 23063746

Copy to:

- (i) PS to Hon'ble Minister of Power & NRE.
- (ii) PS to Hon'ble MoS for Power
- (iii) Sr PPS to Secretary(Power)
- (iv) PPS to SS&FA ,PPS to AS(AT)
- (v) All Joint Secretaries/EA/Chief Engineer, Ministry of Power
- (vi) In-charge, NIC, Ministry of Power- with a request to upload this document on the website of MoP.



F. No.11/86/2017-Th.II (C.No 238797)

Government of India

Ministry of Power

Shram Shakti Bhawan, Rafi Marg,
New Delhi, dated the 03rd May, 2023.

ADDENDUM

Subject: Addendum to Revised Policy for Biomass Utilization for Power Generation through Co-firing in Coal based Power Plants issued on 08.10.2021 - reg.

Ministry of Power had issued a Revised Policy for Biomass Utilization for Power Generation through Co-firing in Coal based Power Plants, vide letter dated 08.10.2021 (copy enclosed).

2. This is an 'Addendum' to the Policy referred to above, for addition of Para 4, after Para 3 of ibid policy, as under:

"4. Biomass pellets used for co-firing in TPPs can be made from the following:

(i) 'agro-residue' [as mentioned in Para 3(i), 3(ii) and 3(iii) above] i.e. the leftover portion of the agriculture produce such as stubble/straw/stalk/husk which are surplus and not being used as animal fodder. This includes agro-residue obtained from crops like Paddy, Soya, Arhar, Gwar, Cotton, Gram, Jawar, Bajra, Moong, Mustard, Sesame, Til, Maize, Sunflower, Jute, Coffee, etc. as well as Groundnut Shell, Coconut Shell, Castor Seed Shell etc.

(ii) In addition, pellets made from the following agro product/crop/waste can also be used for co-firing in TPPs

a. Bamboo and its by-products (e.g. Bamboo Chips, Cuttings, Bamboo Dust etc.).

- b. Horticulture waste such as dry leaves and trimmings obtained from maintenance & pruning of trees and plants.
- c. Other biomass such as Pine Cone/Needle, Elephant Grass, Sarkanda etc. "

3. This issues with approval of Hon'ble Minister of Power & NRE.


(J. Misra)

Under Secretary to the Government of India
Tele: 23063746

To,

- 1. Principal Secretary/Secretary in charge of Energy/Power Department, All States/UTs
- 2. Chairperson, CEA
- 3. CMDs of all CGSs/IPPs

Copy to:

- (i) PS to Hon'ble Minister of Power & NRE.
- (ii) PS to Hon'ble MoS for Power
- (iii) Sr PPS to Secretary(Power)
- (iv) PPS to SS&FA ,PPS to AS(AT)
- (v) All Joint Secretaries/EA/Chief Engineer, Ministry of Power
- (v) In-charge, NIC, Ministry of Power- with a request to upload this document on the website of MoP.



No. 11/86/2017-Th.II
Government of India
Ministry of Power

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Shram Shakti Bhawan, Rafi Marg,
New Delhi, dated the 8th October, 2021

To,

1. Principal Secretary/Secretary in charge of Energy/Power
Departments, All States/UTs
2. Chairman, CEA
3. CMDs of all CGSs

**Subject: Revised Policy for Biomass Utilisation for Power Generation
through Co-firing in Coal based Power Plants**


Sir/Madam,

The undersigned is directed to refer to this Ministry's "Policy for Biomass Utilisation for Power Generation through Co-firing in Pulverised Coal Fired Boilers" issued in November, 2017

2. In order to further promote use of biomass pellets in coal based thermal power plants, the above Policy is further modified. A copy of "Revised Policy for Biomass Utilisation for Power Generation through Co-firing in Coal based Power Plants" is enclosed for information and necessary action please.

Yours faithfully

Encls: As Above


Kumar Saurabh
Deputy Director(Thermal)
Ministry of Power

Copy to:

- (i) PS to Hon'ble Minister,
- (ii) PS to Hon'ble MoS for Power,
- (iii) Sr. PPS to Secretary(Power),
- (iv) PPS to AS(SKGR), PPS to AS&FA, PPS to AS(VKD)
- (v) All Joint Secretaries/EA/Chief Engineer, Ministry of Power
- (vi) Incharge, NIC, Ministry of Power - with a request to upload this document on the website of MoP.

REVISED POLICY OF MINISTRY OF POWER FOR BIOMASS UTILIZATION FOR POWER GENERATION THROUGH CO-FIRING IN COAL BASED POWER PLANTS

1. The current availability of biomass in India is estimated at about 750 million metric tonnes per year. The estimated surplus biomass availability is at about 230 million metric tonnes per annum covering agricultural residues.

2. Ministry of Power (MoP) vide its policy dated 17-11-2017 on biomass utilization for power generation had advised that all fluidized bed and pulverized coal units (coal based thermal power plants) except those having ball and tube mill, of power generation utilities, public or private, located in India, to use 5-10% blend of biomass pellets made, primarily, of agro residue along with coal after assessing the technical feasibility, viz. safety aspect etc.

3. In order to further promote use of biomass pellets in coal based thermal power plants, the above Policy is further modified. The modifications in the above Policy are as under:

(i). All coal based thermal power plants of power generation utilities with **bowl mill**, shall on annual basis mandatorily use 5 percent blend of biomass pellets made, primarily, of agro residue along with coal with effect from one year of the date of issue of this guideline. The obligation shall increase to 7 percent with effect from two years after the date of issue of this order and thereafter.

(ii). All coal based thermal power plants of power generation utilities with **ball & race mill**, shall on annual basis mandatorily use 5 % blend of biomass pellets (torrefied only) made, primarily, of agro residue along with coal. This is to be complied within one year starting from this order. Two years from the date of issue of this order and thereafter the obligation will increase to 7 percent.

(iii). All coal based thermal power plants of power generation utilities with **ball & tube mills**, shall on annual basis mandatorily use 5 % blend of torrefied biomass pellets with volatile content below 22%, primarily made of agro residue along with coal. This is to be complied within one year.

(iv). Generating Utilities having certain units under Reserve Shutdown or not being despatched due to MOD (Merit Order Despatch) consideration would ensure to increase the percentage of co-firing up to 10 % in their other operating units/ plants (5 % in plants having ball and tube mills).

(v). Any power plants seeking exemptions / relaxation from co-firing may be considered on case to case basis, based on recommendations of CEA. A Committee headed by Chief Engineer (TE&TD), CEA, including representatives from NTPC, BHEL, CPRI, Ministry of Agriculture and Mission



Directorate shall examine the request of power plants for their exemption/relaxation from mandatory co-firing of biomass, as mentioned at para (i) to (iv) above.

(vi). The policy for co-firing of biomass would be in force for 25 years or till the useful life of the thermal power plant whichever is earlier. The minimum percentage of biomass for co-firing will be reviewed from time to time.

(vii) The minimum contract period for procurement of biomass pellets by generating utilities shall be for 7 years so as to avoid delay in awarding contracts by generating companies every year and also to build up long term supply chain. There may be provision of firm price of biomass pellets for the first year of the contract and yearly rate variation from second year onwards where rates can vary as per terms and conditions of the contract. In order to enable its implementation, a model RfP and contract shall be issued by MOP by 15.11.2021 for adhering to by all generating utilities. However, the ongoing process of contracting for biomass co-firing by generating utilities shall not be affected till issue of Model Contract.

(viii). Provisions related to tariff determination and scheduling shall be as given below:

- a. For projects set up under Section 62 of the Electricity Act 2003, the increase in cost due to co-firing of biomass pellets shall be pass through in Energy Charge Rate (ECR).
- b. For projects set up under Section 63 of the Electricity Act 2003, the increase in ECR due to biomass co-firing can be claimed under Change in Law provisions.
- c. Such additional impact on ECR shall not be considered in deciding Merit Order Despatch (MOD) of the power plant.
- d. Obligated Entities such as Discoms can meet their Renewable Purchase Obligations (RPO) by buying such generation of co-firing.