

**Draft guidelines for monitoring the use of coal for Power generation in Co-generation projects during off-season for the purpose of Determination of Tariff for Bagasse based Cogeneration Plants during off season using coal as fuel**

**I. Preamble:**

Bagasse based cogeneration plants generate electricity using bagasse as fuel during their operating season [when sugar is produced] and during off-season with the available surplus bagasse. Due to the limited availability of bagasse during off-season, the plants often remain idle without generating electricity for want of fuel. In this context, to optimally utilize the available electrical capacity from cogeneration plants, the Commission had issued a discussion paper titled "UTILISATION OF BAGASSE BASED COGENERATION PLANTS DURING OFF SEASON USING COAL AS FUEL". In the light of the replies received from various stakeholders, the Commission invited comments on the various parameters to be considered for determination of tariff for Bagasse based Cogeneration Plants during off season using coal as fuel a copy of which is enclosed as annexe-1. The Parameters proposed are discussed in the following paragraphs:

**A. Technical:**

**i. Calorific value of fuel:**

A calorific value of 4100 kcals/kg for indigenous coal and 5600 kcals/kg for imported coal for the purpose of determining the tariff with 50: 50.blend

**ii. Heat rate:**

A heat rate of 3269 kcals/kwh

**iii. Plant load factor for off season**

A PLF of 85% during off season.

**B. Financial :**

**i. Capital Cost:**

The Commission had proposed not to allow any additional depreciation, interest and finance charges including RoE on the capital cost.

**ii. O & M expenses:**

3% of Capital Cost as O & M expenses with annual escalation of 5% for off season also.

**iii. Working capital:**

2-months receivables corresponding to the off-season as the working capital.

**iv. Fuel Cost:**

The Commission had proposed to adopt the rates notified by Coal India Limited [CIL] from time to time for indigenous coal and for imported coal, the Commission proposed to adopt CERC's composite index as notified from time to time for determining the price of coal.

**v. Incentive for off-season generation:**

The Commission had proposed to have a generation based incentive [GBI] or alternatively, it was proposed to retain the first year tariff as applicable for bagasse based operation during season, so that the generators would earn an additional amount equal to 0.8% of RoE.

The Commission received comments from various stakeholders and also held a public hearing in the matter on 14.02.2014

Before finalizing the tariff, the Commission on 27.10.2014 and 03.12.2014 had written to the Ministry of New and Renewable Energy seeking clarification as to whether Co-generation Plants could be allowed to operate as RE generators during the main operating season using bagasse and as conventional plants during off-season using coal as fuel, without losing RE status for the period of operation during the main operating season. In response, the Ministry vide their letter dated 24.12.2014 has replied as under:

*“In view of surplus and additional power generation capacities established in sugar mills in the State of Karnataka and to enable these sugar mills to supply power during off-season, this Ministry has ‘No Objection’ for operating grid connected bagasse co-gen plants using coal as fuel during off-season without losing their RE status. However, KERC may like to place the mechanism for monitoring number of days during off-season for calculation of coal based tariff.”*

In the light of the above response received from the Ministry, the Commission proposes to issue the following guidelines for monitoring the power generated using coal during off-season:

**II. Guidelines for monitoring the use of coal for power generation during off-season:**

- i. The Co-generation Project developer, shall prior to the use of coal for power generation, declare the starting date and the ending date of the off-season to the Licensee who buys such power.
- ii. The Project developer shall furnish monthly fuel procurement and usage statement along with the monthly energy bill duly certified by Chartered Accountant to the Licensee, who buys such power.
- iii. The statement shall cover the following details:
  - a) The quantity of coal in metric tons procured and consumed during the month for power generation purpose only.
  - b) Cumulative quantity of coal procured and consumed till the end of that month during the off-season.
  - c) Gross and net energy generation in kWh generated during the month.
  - d) Cumulative quantity of Gross and net energy generation in kWh generated till the end of that month during the off-season.
  - e) Opening stock of coal in ton.
  - f) Receipt of fuel quantity in ton at the power plant site.
  - g) Closing stock of coal in ton.

- h) Opening stock of bagasse during the beginning date of off-season, bagasse purchased during off-season and the closing stock of bagasse at the end of off-season.
- iv. The Licensee at the end of the off-season shall validate the use of coal for power generation by itself or through third party verification and satisfy itself of the quantity of coal used for such power sold to it.
- v. The Commission suo motu or by an application from either the Co-generation Project developer or by the Licensee procuring such power, may verify the quantum of coal used for electricity produced and sold to the Licensees during off-season. The findings of the Commission in the matter would be final and binding on the parties.
- III. The Commission invites views/suggestions/comments on the above guidelines in addition to giving one more opportunity to interested persons to furnish their views/suggestions/comments regarding the proposed parameters for tariff determination using coal during off-season. The views/suggestions/comments shall reach the Secretary, Karnataka Electricity Regulatory Commission, No. 9/2, Mahalaxmi Chambers, 6<sup>th</sup> & 7<sup>th</sup> Floors, Mahatma Gandhi Road, Bengaluru-560 001, on or before 30.04.2015.

APPROVED BY THE COMMISSION

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SECRETARY