

**Summary of the comments and suggestions received on Approach Paper on Terms and Conditions of Tariff Regulations for the tariff period 1.4.2014 to 31.3.2019**

(Ref No. 20/2013/CERC/Fin(Vol-I)/Tariff Reg/CERC Date: 25<sup>th</sup> June'2013)

**5.2.6 Operational Norms for thermal Power Plant based on Coal rejects**

The Comments are invited in regard to following issues, namely\_

- a) *In view of the above, suggestions/comments are invited on the introduction of operational norms for thermal power plants based on coal rejects. What will be the norms for station heat rate, specific secondary oil consumption, Normative Annual Plant Availability and transit and handling losses?*

**Comments/Suggestions:**

Sr. No.	Name of organization/ stakeholder	Comments/ Suggestions
<b>A) Electricity Regulatory Commissions (JERCs/SERCs)</b>		
A.1	Uttar Pradesh Electricity Regulatory Commission (UPERC)	As specific category of coal reject based thermal power plants should be considered. Such plant would probably be having small capacities in the range of 25/50/100 MW.
<b>B) Government Departments</b>		
B.1	Government of Punjab, Dept. of Power	Comments can be offered if actual data for such stations is available.
<b>C) Central Generators/Transmission License</b>		
C.1	IL & FS Energy	It is our submission that coal washeries rejects based projects essentially fall under the waste of Energy category. Capital cost of such projects is very high. Commission is hereby requested to consider introducing a preferential tariff to make such projects. Commission may consider the following operational norms for power plants based on coal rejects :- a) Station Heat Rate must not be less than 3000 kCal/kWh. b) Auxiliary consumption is on higher side and should be in the range of 11-12% for power plants and 1.5 to 2% for Washeries. c) NAPAF should be 75%, due to handling of low quality fuel Consisting of stones, ash etc. d) Transit and handling losses of 3-5% should be allowed as Multiple handling is required leading to losses.
<b>D) State Generators/Transmission License</b>		
D.1	Maharashtra State Power Generation Co. Ltd.	The introduction of operational norms for thermal power plants based on coal rejects should not be considered as this is purely technical matter to be taken care and controlled by the generating station authorities.
<b>E) State Distribution Licensee/SEBs</b>		

E.1	Rajasthan Discom Power Procurement Centre.	View may be taken based on actual data of such station.
E.2	Uttar Pradesh Power Corporation Ltd. (UPPCL)	The coal reject based TPS have been installed in the capacity range of 30MW to 270MW in different States i.e. AP, Chhattisgarh, Jharkhand and Orissa. The GCV of the coal rejects which is in the range of 1360-2000 Kcal/Kg is suitable for FBC/CFBC plants and for different blending ratios the variable cost ranges from Rs. 2.5/kWh to Rs. 3.5/kWh because of low PLF. However it may be pointed out that no published data is available for the operating norms for station heat rate, specific secondary oil consumption, normative annual plant availability and transit losses is available. Techno economic studies have been carried out in such cases by USAID and Power Enviro Lab Consultants Pvt. Ltd. Hyderabad and Aryan Coal Benefication Pvt. Ltd. Chhattisgarh are running such power stations. It is therefore suggested that the required data of SHR, SOC etc. may be obtained from these sources.
E.3	Chhattisgarh State Power Distribution Co. Ltd.	Certain plants based on coal rejects are already in operation, hence the Commission may float a separate approach paper for determination of tariff for such plants.
E.4	Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)	Actual data should be provided for further comments/ suggestions on the norms for such coal rejects based power plants. It is suggested that Hybrid approach of actual + normative may be adopted till certain period of time/ number of operations of certain power projects and thereafter appropriate norms can be established.
E.5	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	Commission may circulate draft norms for such type of Coal Plants in case it decides to include the same in the Regulation.
<b>F) Private Sector (Generators/Transcos/Distribution Cos)</b>		
F.1	Power Trading Corporation	<p>a. Use of washery rejects Washery rejects may be used by blending with high GCV coal. Hence use of washery rejects alone may not be covered in CERC norms. Review of operation norms by an independent technical consultant.</p>
F.2	Association of Power Producers (APP)	<ul style="list-style-type: none"> <li>• Norms for Reject based Power Plants would help creating additional Capacity at Pit head with a better disposal option of washery reject without use of transportation infrastructure</li> </ul>

		<ul style="list-style-type: none"> <li>The following norms have been proposed:</li> </ul>																					
		<table border="1"> <thead> <tr> <th>Reg No.</th> <th>Elements</th> <th>Variance from the Tariff Regulations in coal reject based power plant</th> </tr> </thead> <tbody> <tr> <td>26 (i)</td> <td>Normative Availability</td> <td>Expected to be less than 70%.</td> </tr> <tr> <td>26(ii)</td> <td>Gross SHR</td> <td>Expected to be above 2600 kCal/kWh</td> </tr> <tr> <td>26(iii)</td> <td>Secondary Fuel Oil Consumption</td> <td>Proposal to use Light Diesel Oil as secondary fuel at the rate of 2 ml/kWh</td> </tr> <tr> <td>26(iv)</td> <td>Auxiliary Energy Consumption</td> <td>Expected to be about 12%</td> </tr> <tr> <td>19</td> <td>O&amp;M Norms</td> <td>Corresponding to 135 MW size unit, appropriate norms may be fixed</td> </tr> <tr> <td>8</td> <td>Capitalised initial spares</td> <td>Expected to be 3% of capital cost.</td> </tr> </tbody> </table>	Reg No.	Elements	Variance from the Tariff Regulations in coal reject based power plant	26 (i)	Normative Availability	Expected to be less than 70%.	26(ii)	Gross SHR	Expected to be above 2600 kCal/kWh	26(iii)	Secondary Fuel Oil Consumption	Proposal to use Light Diesel Oil as secondary fuel at the rate of 2 ml/kWh	26(iv)	Auxiliary Energy Consumption	Expected to be about 12%	19	O&M Norms	Corresponding to 135 MW size unit, appropriate norms may be fixed	8	Capitalised initial spares	Expected to be 3% of capital cost.
Reg No.	Elements	Variance from the Tariff Regulations in coal reject based power plant																					
26 (i)	Normative Availability	Expected to be less than 70%.																					
26(ii)	Gross SHR	Expected to be above 2600 kCal/kWh																					
26(iii)	Secondary Fuel Oil Consumption	Proposal to use Light Diesel Oil as secondary fuel at the rate of 2 ml/kWh																					
26(iv)	Auxiliary Energy Consumption	Expected to be about 12%																					
19	O&M Norms	Corresponding to 135 MW size unit, appropriate norms may be fixed																					
8	Capitalised initial spares	Expected to be 3% of capital cost.																					
<b>G) Other Organizations/NGOs/Institutions</b>																							
<b>H) Individual</b>																							
H.1	Shri R. B. Sharma	The introduction of operational norms for thermal power plants based on coal rejects is not considered a desirable feature as this is purely a technical matter to be taken care and controlled by the generating station authorities. The norms should be transparent and the same must not hyper technical in nature. The basic feature of regulation making should be that it is easily understood by the beneficiaries and not that the payment is forced on the beneficiaries through a non-transparent regulatory mechanism. As such, this can be avoided																					
H.2	Shri Arun Kumar Dutta	No suggestions can be offered without basic data of quality of rejects. Necessary incentive can be claimed from the coal mines for using the rejects and such incentive can be passed on to the power plant. There is no scope of any extra expenses which can be recovered through tariff from consumer for using the reject coal.																					