

**Gist of comments of Stake Holders on Tariff for Bagasse based Cogeneration plants during off season using Coal as fuel**

Issue:	Sri Chamundeswari Sugars Ltd	Karnataka Renewable Energy Development Ltd., bangalore	Chamundeswari Electricity Supply Corporation, Mysore	Karnatak Chambers of Commerce & Industries, Hubli
Applicability	The new scheme may be applicable to all PPA holders, existing and the new	<p>As per the guidelines of the MNRE, the cogeneration power plants are allowed to mix 15 % of fossil fuel for a project to qualify as non-conventional Generation project.</p> <p>It is to be clarified from MNRE that, if the ratio of the fossil fuel enhanced these power projects fall under Conventional category or Nonconventional category.</p> <p>As a special case apart from MNRE Norms of using 15 to 20 % coal blending, scarcity of power in Karnataka we can use the Infrastructure of CO-generation plants during</p>	Shall be made applicable to existing as well as new generators who enter into PPA with licensees.	-

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		idle conditions in off season.		
Calorific value	-	Most of the multi fuel Boilers is designed for 100 % operation by using indigenous and imported coal of Calorific value which varies from 3200 to 5200 Kcal/Kg.  Bagasse Calorific value at 48 % to 50 % Moisture would be 2272 Kcal/kg		BESCOM comments may be considered.  [BESCOM earlier had proposed 5300-6200 kcal/kg for imported coal and 3800-4000 kcal for indigenous coal]
Heat Rate & Boiler efficiency		Imported coal: 80% efficiency	50:50 as proposed by Commission.	As proposed by the Commission can be considered. However at page-3 of the reply, it is stated that SISMA's comments are in order [SISMA's earlier proposal is 3360 kcals/kWh].
Fuel Mix	Imported fuel boilers used in the sugar factories are travelling grate boilers and only lower ash fuel say	Most of the multi fuel Boilers is designed for 100 % operation by using indigenous and imported coal of Calorific value which varies from 3200 to		

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	within 10 % could be used. Indian coal has an ash content of 30 to 40 % and therefore cannot be used. Therefore, the fuel has to be only 100 % imported coal along with or without bagasse.	5200 Kcal/Kg		
Net power output		In all most all factories gross power generation during season is rated capacity but during off season, captive load of 8 to 12 % of Generation capacity left will be exportable.	During crushing season 80 units per metric ton of cane crushed shall be considered as net power output and beyond 80 Kw hour shall be treated as power generated using Coal as recommended by SISMA. During season the entire power output shall be by Coal.	
PLF		During off season using Imported coal. Around 80 % to 90 %.	85% during off season shall be considered.	During off season maintenance period to be accounted and PLF may not be 85%. Hence, 80% to be

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				considered. Further maximum PLF to be obtained during season period without taking out the plant for annual maintenance.
Capital cost	Imported fuel boilers would have additional capital cost in terms of the establishment of coal storage , starting, preparation, conveyor belts, transport, feeder arrangement, ESP etc. all these arrangements would cost a minimum of Rs.50.00 lakhs per MW more than a purely bagasse firing boiler and has to be compensated	i.	Generic tariff determined by Commission has already considered capital cost. Thus during off season only Coal cost should be considered. Thus variable charges shall be paid for the energy generated by using Coal during off season and for the quantum assessed to have been generated using during season.	Commission's proposal is in order.
O & M	<sup>1</sup> . The O & M expenses may be increased from the	The use of coal in the off season leads to higher wear & tear of the		

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	existing 3% to 5 %, as coal being more abrasive fuel would result in high wear and tear.	<p>machineries and on labor. Additional financial assistance is required.</p> <p><b>O &amp; M Cost:</b> O &amp; M cost is more during off- season operation of cogeneration plants due to .</p> <ul style="list-style-type: none"> <li>ii. Coal handling staff &amp; Machineries.</li> <li>iii. Extra Man power of maintenance.</li> <li>iv. During season raw material will come from mills and directly fed to the Boilers, but during off season material handling equipment's maintenance and operation extra power is required and man power also required.</li> <li>v. Evaporation loss of water resulting in water scarcity is problem during off season.</li> </ul>		
Working capital				SISMA comment is reasonable. [SISMA had earlier

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				commented that in addition to 2-months receivables, one-month coal cost is to be considered]
Fuel Cost		<p>During off-season Imported Coal landing cost would be Rs. 5200/- per ton. Fuel cost approximately Rs.5.80 per unit + Auxiliary power consumption 10-13%.</p> <p>For the monitoring purpose, the project developer shall furnish a monthly fuel usage statement and monthly fuel procurement statement duly certified by Chartered Accountant to the procurer and the nodal agency for each month, along with the monthly energy bill.</p> <p>The statement should cover details, such as:</p>		<p>As per page -3 it is stated that as per CIL &amp; CERC's index as proposed by the Commission is in Order. However at page 4, it is stated that the comments of SISMA are in order</p> <p>Vide another letter dated 23.12.13, KCCI has stated that use of imported coal is exorbitant and GoK has to make budgetary provisions in advance to make it financially viable. Who has to bear what cost and what subsidies are offered may be well defined.</p>

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		<p>i. Quantity of fuel (in tonnes) for each fuel type (Bagasse fuel and fossil fuel) consumed and procured during the month for power generation purposes,</p> <p>ii. Cumulative quantity (in tonnes) of each fuel type (Bagasse fuel and fossil fuel) consumed and procured till the end of that month during the year,</p> <p>iii. Actual (gross and net ) energy generation (denominated in units) during the month,</p> <p>iv. Cumulative Actual (gross and net ) energy generation (denominated in units) till the end of that month during the year</p> <p>v. Opening fuel stock quantity (in tonnes),</p> <p>vi. Receipt of fuel quantity (in tonnes) at power plant site</p> <p>vii. Closing fuel stock</p>		

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		<p>quantity for each fuel type (Bagasse fuel and fossil fuel) available at the power plant site. Non-compliance to the condition regarding limited use of fossil fuel, during any financial year shall result in withdrawal of "Preferential tariff" as per this order for such Bagasse based co-generation project.</p> <p>Yes, it is very essential to fix the two tariffs in season and during off season coal as a fuel has been used in Maharashtra State.</p>		
Incentive		Maharashtra State has given Incentives like Total Transmission line cost reimbursed and 1 crore green fund for Evacuation substation, CERC guide lines are implemented for getting	GBI is agreeable with a suitable mechanism	<p>GBI proposed by the Commission is in order.</p> <p>However at pg-3 it is stated that, SISMA comments are in order.</p>



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		the REC's even though Generators exported power to third party.		[SISMA in earlier representation has stated that RE benefits needs to be continued even if coal is used]
Tariff	Single part tariff may be computed for bagasse based operations as is being done at present. For coal based operations dual part tariff may be computed wherein the fuel cost part could be arrived on a quarterly basis for the next three months based on the prevailing coal prices which would help the operators to make a decision whether to operate the plant or not.		The variable charges shall be determined for use of Coal based on CERC (terms & conditions of tariff) Regulations, 2009. For Bagasse based generation generic tariff determined by the Commission shall be considered.	
others	a. Generic tariff for co-gen plants has		Suitable mechanism to check the use of fuel	it has to be clarified by the company

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	<p>expired and therefore the Commission may determine fresh tariff from 2014 onwards.</p> <p>b. Sugar plant operation is not steady due to fluctuation in cane supply.</p> <p>c. Sugar plants operate for 6 to 8 months in a year and are idle during off season.</p> <p>d. to allow use of coal as supplemental fuel during season to stabilize the output and as main fuel during off-season so as to generate 80 MWh for every metric ton of cane crushed.</p> <p>e. during season the tariff to be as per bagasse based price</p>		shall be in place.	<p>i. a) That the boilers suits for both bagasse and coal</p> <p>b) That the conveyer provided for bagasse has to be suitable for coal also.</p> <p>ii. Who to declare the OFF SEASON – Working Season and who to monitor it.</p>

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	up to 80 MWh and balance to be at coal based tariff.			