BIHAR ELECTRICITY REGULATORY COMMISSION

(Terms and Conditions for Tariff Determination from Renewable Energy Resources) Regulations, 2017, Dated: 24.10.2017

Sl. No.	Description	Summary	
1.	**Review Period/Control Period**	3 Years (FY 2017-18 being the first year)	
2.	**Tariff Period**	RE Projects	Useful Life (Years)
		Wind energy power project	25
		Bio mass power project with Rankine cycle technology	20
		Non-fossil fuel cogeneration project	20
		Small Hydro Plant	35
		Municipal Solid Waste (MSW)/ and Refuse Derived Fuel (RDF) based power project	20
		Solar PV/Solar thermal power project	25
		Biomass Gasifier based power project	20
		Biogas based power project	20
3.	**Tariff Structure**	The tariff for Projects based on RE technologies shall be a single-part tariff consisting of the following fixed cost components: (a) Return on equity; (b) Interest on loan capital; (c) Depreciation; (d) Interest on working capital; (e) Operation and maintenance expenses; For RE Projects based on technologies having a fuel cost component, like Biomass-based Power Projects and non-fossil fuel-based Co-Generation Projects, a single-part tariff with two components, viz., fixed cost component and fuel cost component, shall be determined.	
4.	**Despatch principles**	All RE Power Projects, except for Biomass-based Power Projects with installed capacity of 10MW and above and non fossil fuel based cogeneration plants shall be • treated as 'Must Run' Projects and shall not be subjected to 'merit order despatch' principles. • subjected to scheduling and despatch code	
5.	**Debt Equity Ratio**	• 70:30 • For project-specific tariff determination, if the equity actually deployed is more than 30% of the Capital Cost, the equity in excess of 30% shall be treated as normative loan.	
6.	**Loan Charges**	Loan Tenure-10Years	
7.	**Interest Rate**	200 basis points above the average State Bank of India MCLR (1-year tenor) prevalent during the last available six months	
8.	**Depreciation**	7.0% per annum for first 10 years and remaining depreciation to be spread during remaining useful life of the RE projects considering the salvage value of the project as 10% of project cost shall be considered.	
9.	**Return on Equity**	Value base for equity shall be 30% of the capital cost or actual equity and normative return on equity shall be 14% to be grossed up by prevailing MAT as on 1stApril of previous year	
10.	**Interest on Working Capital**	300 basis points above the average State Bank of India MCLR (1-year tenor) prevalent during the last available six months.	

11.	**Rebate**	2% when payment is through letter of credit and 1% otherwise
12.	**Late Payment Surcharge**	A late payment surcharge at the rate of 1.25% per month if payment is delayed by 60 days
13.	**CDM Benefits**	a) 100% of the gross proceeds on account of CDM benefit to be retained by the project developer in the first year after the date of commercial operation of the generating station; b) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the generating company and the beneficiaries.
14.	**Subsidy**	The Commission shall take into consideration any grant, subsidy or incentive offered by the Central or State Government or their agencies, including accelerated/additional depreciation benefit, if availed, while determining the tariff under these Regulations.
15.	**Taxes and Duties**	Taxes and Duties levied by the government shall be allowed as pass through on actual incurred basis and tariff determined shall be exclusive of taxes and duties
16.	**Transmission and Wheeling Charges**	To be determined by Commission
17.	**Cross-Subsidy Charge**	Exempted
18.	**Banking**	2% of the energy fed into the grid for banking by the generator will be paid as banking charge to BSPHCL/distribution lincensee.

S. No.	Renewable Energy Source	Biomass Based Power Projects			Non-fossil fuel based Cogeneration Projects	Solar PV Power Project and Rooftop Solar PV Projects	Solar Thermal Power Project	Biomass Gasifier Power Projects	Municipal Solid Waste/refuse derived fuel and based on Rankine Cycle	
1.	**Auxiliary consumption**		Water cooled condenser	Air cooled condenser	8.5%	0.25%	10%	10%	15%	
		During 1st year of operation	11%	13%						
		from 2nd year onwards	10%	12%						
2.	**Calorific Value (kcal/kg)**	3174			2250	-	-	-	2500	
3.	**Capital Cost (lakh/MW)**	Projects [other than rice straw and juliflora (plantation) based projects] with water cooled condenser.		559.03	492.5	442.18	1200	592.88 (with subsidy of Rs 150.00 lakhs/MW, so net project cost shall be Rs. 442.88 Lakh/MW	MSW	1500
		Projects [other than rice straw and juliflora (plantation)] based projects with air cooled condenser.		600.44						
		for rice straw and juliflora (plantation)] based projects with water cooled condenser.		610.80					RDF	900
		for rice straw and juliflora (plantation)] based projects with air cooled condenser.		652.20						
4.	**Plant Load factor/CUF**	During Stabilization	60%		Based on 210 operating days and load factor of 92%	19%	23%	85%		MSW RDF
		After stabilization till 1st year	70%						till 1st year	65% 65%
		from 2nd year onwards	80%						from 2nd year onwards	75% 80%
5.	**Station Heat Rate (kCal/kWh)**	Using travelling grate boilers	4200		3600	-	-		4200	
		Using AFBC boilers	4125kCal/kWh							

6.	**O&M Expenses** (**lakh/MW**) (for FY 2017-18)**	For 1st year of control period	40	21.13	7.4	19.81	52.83	6% of Capital cost
7.	**Fuel Cost* (for FY 2017-18)**	3073.05/MT		1964.71/MT	-	-	3073.05/MT	1,800/MT Note: No fuel cost for MSW

*Normative escalation factor of 5% per annum for each subsequent year over tariff period.

** Normative escalation factor of 5.72% per annum for each subsequent year over tariff period.