

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

**(Terms and Conditions for Determination of Renewable Energy Tariff)
Regulations, 2015, Dated: 10.11.2015 with amendment Dated: 04.01.2017**

Sl. No	Description	Summary			
1.	Review Period/Control Period	5 Year (up to the end of FY 2019-20)			
2.	Tariff Period	Sl. No.	RE Technology	Tariff Period (in Years)	
		1.	Wind Power, Biomass-based, Solar PV, Solar Roof-top PV and Non-Fossil Fuel-based Co-Generation Projects	13	
		2.	Small Hydro Power Projects of capacity exceeding 5 MW and upto and including 25 MW	13	
		3.	Small Hydro Power Projects of 5 MW capacity or less and for Mini/ Micro Hydro Power projects	35	
		4.	Solar Thermal Projects	25	
3.	Tariff Structure	<p>The tariff for Projects based on RE technologies shall be a single-part tariff consisting of the following fixed cost components:</p> <ul style="list-style-type: none"> (a) Return on equity; (b) Interest on loan capital; (c) Depreciation; (d) Interest on working capital; (e) Operation and maintenance expenses; <p>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.</p>			
4.	Despatch principles	According to Indian Electricity Grid Code and the State Electricity Grid Code, all RE Power Projects, except for Biomass-based Power Projects and Co-Generation Project, shall be treated as 'Must Run' Projects and shall not be subjected to 'merit order despatch' principles.			
5.	Capital Cost	Sl. No	Renewable Energy Source	Project Size	Capital Cost (Rs. Lakh/MW)
		1.	Wind Energy	-	600.74
		2.	Small Hydro Project	>1 MW and upto 5 MW	605.28
				>5 MW and upto 25 MW	550.70
		3.	Biomass based Projects		494.32
		4.	Non-fossil fuel based Cogeneration Projects		489.02
		5.	Solar PV Power Project		605.85
6.	Solar Thermal Power Project		1200		

6.	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.			
7.	Tariff Design	1. The tariff shall be determined on a levelised basis for the Tariff Period. 2. Levelisation shall be carried out for the 'useful life' of the RE Project, while tariff shall be determined for the period equivalent to the Tariff Period.			
8.	Loan Charges	Loan Tenure-12Years For the purpose of computation of tariff, the Base Rate of the State Bank of India prevailing during the previous year plus 300 basis points shall be considered as the normative interest rate.			
9.	Depreciation	The depreciation rate for the first 12 years of the Tariff Period shall be 5.83% per annum, and the remaining depreciation shall be spread over the remaining useful life of the project from the 13th year onwards.			
10.	Return on Equity	The Return on Equity shall be computed at the base rate of 16%, to be grossed up as per the applicable tax rate.			
11.	Interest on Working Capital	Interest on Working Capital shall be the average of the Base Rate of State Bank of India prevalent during the previous year, plus 350 basis points.			
12.	Sharing of Clean Development Mechanism (CDM) Benefits	All risks, costs and efforts associated with the availing of carbon credits shall be borne by the Project Entity. The entire proceeds of carbon credit from approved CDM Project, if any, shall be retained by it.			
13.	Operation and Maintenance Expenses	Sl. No	Renewable Energy Source	Project Size	O&M Expense (Rs. Lakh / MW)
		1.	Wind Energy		1.47 % of the Capital Cost
		2.	Small Hydro Project	>1 MW and upto 5 MW	3.60% of the Capital Cost.
				>5 MW and upto including 25 MW	2.80% of the Capital Cost.
		3.	Biomass Power Projects		5.32% of the Capital Cost
		4.	Non-fossil fuel based Cogeneration Projects		3.54% of the Capital Cost
		5.	Solar PV Power Project		13
6.	Solar Thermal Power Project		15		
14.	Rebate	1. For payment of bills of the Project Entity through Letter of Credit, a rebate of 2% shall be allowed. 2. Where payments are made other than through Letter of Credit within one month of presentation of bills by the Project Entity, a rebate of 1% shall be allowed.			
15.	Late Payment Surcharge	In case the payment of any bill for charges payable under these Regulations is delayed beyond a period of sixty days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the Project Entity.			
16.	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.			
17.	Taxes and Duties	The taxes and duties levied by the appropriate Government on generation, and sale of electricity from such RE Project, such as Electricity Duty and Water Royalty, shall be allowed as a pass-through to the extent actually incurred.			

18.	Capacity utilization factor/Plant Load Factor	SI. No.	Region	Renewable Energy Source	Project Size	CUF/PLF
		1.	Zone 1	Wind Power (Density (W/m ²))	<=250	22%
			Zone 2		>250 - <=300	25%
			Zone 3		>300 - <=400	30%
			Zone 4		400	32%
		2.		Small Hydro Project		30%
		3.	During stabilisation:	Biomass based Power Projects		60%
			During the remaining period of the first year (after stabilisation)			70%;
			From 2nd year onwards			80%.
		4.		Non-fossil fuel based Cogeneration Projects		60%
5.		Solar PV Power Project		19%		
6.		Solar Thermal Power Project		23%		
19.	Auxiliary Consumption	SI. No	Renewable Energy Source	Auxiliary Consumption		
		1..	Small Hydro Project	1.0%		
		2..	Biomass Based Power Projects	10%		
		3.	Non-fossil fuel based Cogeneration Projects	8.5%		
		4.	Solar Thermal Power Project	10%		
20.	Station Heat Rate	RE Technology	Quantity			
		Biomass-based Power Projects	4200 kcal/kWh			
		Non-fossil fuel-based Co-Generation Projects	3600 kcal/kWh			
21.	Calorific Value	RE Technology	Quantity			
		Biomass-based Power Projects	3611 kcal/kg.			
		Non-fossil fuel-based Co-Generation Projects	2250 kcal/kg			
22.	Fuel Cost	RE Technology	Quantity			
		Biomass-based Power Projects	Rs. 3987/MT			
		Non-fossil fuel-based Co-Generation Projects	2326.84 /MT			