

# Haryana Electricity Regulatory Commission Terms and condition for Determination of Tariff for Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate Regulation 2017(1st Amendment)

## Summary Table

<b>Net Tariff</b>	--	
<b>Tariff Period</b>	<ul style="list-style-type: none"> <li>• Generally corresponding to project life or period provided in the PPA</li> <li>• Tariff period- 12 months from CoD thereafter on year to year basis from CoD.</li> </ul>	
<b>Control Period</b>	• Control Period under these Regulations shall be from the FY 2017-18 to the FY 2020-21.	
<b>Useful Life of a Plant</b>	<b>Technology</b>	<b>Year</b>
	Non-fossil fuel based Co-generation, Biomass, Municipal solid waste to energy, Biogas power plant	20
	Wind, Solar PV, Solar Thermal	25
	Small hydro	35

Capital Cost	Technology	Capital Cost (in Rs. Crore/MW)
	Wind (FY 2017-18)	*
	Small hydro below 5 MW (FY 2017-18)	7.79
	Small hydro between 5 MW and 25 MW (FY 2017-18)	7.07
	Biomass with water cooled condenser (FY 2017-18)	5.59
	Biomass with air cooled condenser (FY 2017-18)	6
	Biomass using Rice straw with water cooled condenser (FY 2017-18)	6.10
	Biomass using Rice straw with air cooled condenser (FY 2017-18)	6.52
	Non fossil fuel cogeneration (FY 2017-18)	4.925
	Solar PV with PV poly crystalline (FY 2017-18)	*
	Solar PV with PV thin film and roof top (FY 2017-18)	*
	Solar PV canal top (FY 2017-18)	*
	Solar thermal (FY 2017-18)	*
	Biomass gasifier(FY 2017-18)	4.43
	Biogas power plant(FY 2017-18)	8.86
	MSW based on Rankine cycle(FY 2017-18)	15
	*All capital costs will be project specific	

<b>Operation and Maintenance (O&amp;M) Expenses</b>	<b>Technology</b>	<b>O&amp;M Cost (Rs. Crore/MW) for First Year</b>
	Wind	-
	Small hydro below 5 MW	0.29
	Small hydro (5 MW to 25 MW)	0.21
	Biomass	0.40 (FY 2017-18)
	Non fossil fuel cogeneration	0.21 (FY 2017-18)
	Solar PV	-
	Solar thermal	-
	Biomass gasifier	0.53 (FY 2017-18)
	Biogas power plant	0.53 (FY 2017-18)
	MSW WtE	6.5% of normative capital cost for FY 2017-18
	• O&M cost of FY 2018-19 shall be escalated at percent specified	
<b>Interest Rate on Loans</b>	The normative interest rate shall be considered as the average Marginal Cost of funds based lending rate (MCLR) (one-year tenor) of SBI prevailing during the last available six months plus a margin of up to 200 basis points i.e. 2%.	
<b>Depreciation</b>	Rate for the first 13 years of the Tariff Period shall be 5.38% per annum and the remaining depreciation shall be spread over the remaining useful life of the project from 14 th year onwards	
<b>Return on Equity</b>	<ul style="list-style-type: none"> <li>• 14% per annum on normative Equity Capital</li> <li>• MAT/Corporate Tax shall be separately invoiced</li> </ul>	
<b>Interest on Working Capital</b>	Interest on Working Capital, for the purpose of tariff determination, shall be computed at the average Marginal Cost of funds based lending rate (MCLR) (one year tenor) of SBI prevailing during the last available six months plus an appropriate margin not exceeding 200 basis points i.e. 2%.	

Renewable Purchase Obligation (RPO)	Year	Minimum quantum of purchase (in %) Excluding Hydro		
		Solar	Non-solar	Total
	2016-17	1.00	2.75	3.75
	2017-18	2.50	2.75	5.25
	2018-19	4.00	3.00	7.00
	2019-20	5.50	3.00	8.00
	2020-21	7.00	3.00	10.0
	2021-22	8.00	3.00	11.0
	<ul style="list-style-type: none"> <li>• Obligation to purchase renewable energy shall be inclusive of purchase of renewable energy already being made by obligate entity.</li> <li>• Renewable energy purchase under power purchase agreement already entered into shall continue to be made until their validity even if the total renewable energy purchase exceeds RPO.</li> </ul>			
<b>Obligated Entities</b>	Distribution licensees, captive users and long term open access consumers in Haryana			
<b>Ways to Meet RPO</b>	Purchase of energy or certificates or combination thereof			
<b>Certificates</b>	<ul style="list-style-type: none"> <li>• Obligations to fulfill solar and non-solar purchase obligations shall be fulfilled by purchase of solar and non-solar certificates respectively.</li> <li>• Certificates purchased shall be submitted to the Commission by the obligated entity in accordance to detailed procedure issued by Central agency.</li> </ul>			

## OTHER PROVISIONS

<b>Tariff Structure and Design</b>	<ul style="list-style-type: none"> <li>• Single part tariff - Return on equity, Interest ,O&amp;M etc</li> <li>• Generic tariff - Levellised tariff for entire tariff period</li> </ul>
<b>Despatch principles</b>	"MUST RUN" - all renewable energy plants except biomass with capacity of 10MW and above and non-fossil fuel based co-generation plants.

<b>Subsidy or/and Incentives by Government</b>	Any incentive or subsidy provided by the Central or State government
<b>Rebate</b>	<ul style="list-style-type: none"> <li>• 2% - for payment through letter of credit</li> <li>• 1% - for payments not through letter of credit but within 1 month from the date of presentation of bills</li> </ul>
<b>Late Payment Surcharge</b>	1.25% per month for payment of bills beyond a period of 60 days from the date of billing
<b>State Agency</b>	Haryana Renewable Energy Development Agency (HAREDA)
<b>Effect of Default</b>	<ul style="list-style-type: none"> <li>• The commission may direct obligated entities who fail to fulfill obligation and do not purchase certificates to deposit an amount into a separate fund to be created and maintained by the obligated entity.</li> <li>• The amount to be deposited shall be determined based on the shortfall in RPO and forbearance price.</li> </ul>
<b>Banking of RE</b>	Will have to pay banking charges, T&D losses
<b>Links</b>	<a href="https://herc.gov.in/Regulation/1.aspx">https://herc.gov.in/Regulation/1.aspx</a>
<b>References</b>	<a href="https://herc.gov.in/writereaddata/pdf/r20180724.pdf">https://herc.gov.in/writereaddata/pdf/r20180724.pdf</a> <a href="https://herc.gov.in/writereaddata/pdf/r20180827.pdf">https://herc.gov.in/writereaddata/pdf/r20180827.pdf</a>