

Arunachal Pradesh Draft Terms and Conditions for Tariff Determination from Renewable Energy Sources Regulation - 2018

HIGHLIGHTS

Tariff Period	Technology	No. of Years
	Municipal solid waste (MSW) and refused derived fuel (RDF) based power	20
	Wind, solar PV	25
	Small hydro	35
Control Period	3 years, of which the first year shall be 2018-19.	
Useful Life of a Plant	Technology	No. of Years
	Municipal solid waste (MSW) and refused derived fuel (RDF) based power	20
	Wind, solar PV	25
	Small hydro	35

Tariff (Rs./kWh)

Project-specific tariff shall be determined in the following cases :

- Small hydro project (1 MW to 25 MW)
- Renewable energy projects which have been commissioned before 31st March 2017 but for which no power purchase agreement has been signed till 31st March 2017, the Project Tariff shall be determined on an annual basis.
- Solar PV
- Wind energy
- MSW and RDF based projects with Rankine cycle technology.
- Hybrid projects which include renewable-renewable and renewable-conventional sources, for which renewable energy technology has been approved by MNRE.
- Any other new renewable energy technologies approved by MNRE.
- Financial and operational norms specified in the regulation will be ceiling norms.

Capital Cost

All capital costs are for 2017-18, and the same for subsequent years are determined using indexation formula given in Regulations.

Technology	Capital Cost
Wind	Project specific
Small hydro below 1 MW	Rs.1200 lakh/MW
Solar PV	Project specific
MSW/RDF	Project specific

Capacity Utilization Factor	CUF			
	Wind	Annual Mean Wind Power Density (w/m ²) at 100 meter hub-height		CUF
		Up to 220		22%
		221-275		24%
		276-330		28%
		331-440		33%
		>440		35%
	Small hydro*	55%		
	Solar PV	19%**		
	MSW/RDF	Stage	MSW	
		During Stabilization***		65%
		During the remaining period of the first year (after stabilization)		65%
From 2nd year onwards		75%		
*Normative CUF is net of free power, if any, to the home state.				
**The commission may deviate from the norm in case of project-specific tariff.				
***The stabilization period shall not be more than 6 months from the date of commissioning of the project.				
Auxiliary Consumption	Auxiliary Consumption			
	Wind	-		
	Small hydro	1%		
	Solar PV	0.25%*		
	MSW/RDF	15%		
	* The commission may deviate from the norms in case of project-specific tariff determination.			

Operation and Maintenance (O&M) Expenses	Technology	O&M Cost for 2017-18
	Wind	Project specific
	Small hydro below 1 MW	Rs.36 lakh/MW
	Solar PV	Project specific
	MSW/RDF	Project specific
	O&M cost is escalated at 5.72% per annum over the tariff period.	
Interest Rate on Loans	Average State Bank of India marginal cost of funds based lending rate (one-year tenor) prevalent during last six months plus 200 basis points.	
Depreciation	5.28% for the first 13 years and remaining depreciation spread over the residual useful life of the project, considering 10% of the project cost as the salvage value of the project.	
Return on Equity	14% to be grossed up by prevailing Minimum Alternate Tax as on 1st April of previous years for the entire useful life of the project.	
Interest on Working Capital	Average State Bank of India marginal cost of funds based lending rate (one-year tenor) prevalent during the last six months plus 300 basis points.	
Station Heat Rate (Only for MSW/RDF Projects)	4200 kCal/kWh	
Calorific Value (Only for RDF)	2500 kCal/kg	
Fuel Cost	RDF - Rs. 1800/MT for 2018-19 to be escalated at 5% per annum. MSW - No fuel cost.	

OTHER PROVISIONS

Tariff structure and design	<ul style="list-style-type: none"> • Generic or project specific. • Levelised • Single part tariff for technologies not using fuel. • Single part with fixed cost and fuel cost component for technologies using fuel.
Despatch principles	<ul style="list-style-type: none"> • All renewable energy power plants shall be treated as 'MUST RUN' power plants. • Scheduling of wind and solar energy shall be governed by: <ul style="list-style-type: none"> - Arunachal Pradesh State Electricity Grid Code, as amended from time to time - Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Third Amendment) Regulations, 2015, as amended from time to time - Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) (Second Amendment) Regulations, 2015, as amended from time to time
Subsidy or/and incentives by government	Any incentive or subsidy provided by the central or state government including accelerated depreciation benefit would be taken into consideration for determination of tariff.
Taxes and Duties	As pass through on actual incurred basis.
Rebate	<ul style="list-style-type: none"> • 2% on payment through Letter of Credit • 1% on payments not through Letter of Credit but made within one month from the date of presentation of bills.
Late payment surcharge	1.25% per month for payment of bills beyond a period of 60 days from the date of billing.
Links	http://www.apserc.nic.in/index.html
References	http://www.apserc.nic.in/pdf/Draft%20of%20RE%20regulation.pdf