

Jharkhand Renewable Energy Tariff Regulations - 2016

HIGHLIGHTS

Tariff Period	Technology	No. of Years
	Wind, solar PV, solar thermal	25
	Small hydro	35
	Biomass gasifier, biogas, municipal solid waste (MSW), refuse derived fuel (RDF)	20
	Biomass Rankine cycle, non-fossil fuel based cogeneration	13
Control Period	Technology	Year
	Wind, biogas, MSW, RDF, biomass, non-fossil fuel based cogeneration	April 1, 2016 to March 31, 2020.
	Small hydro	Date of gazette notification to March 31, 2020.
	Solar PV, solar thermal	January 20, 2016 to March 31, 2020.
Useful Life of a Plant	Technology	Years
	Wind, solar PV, solar thermal	25
	Biogas, MSW, RDF, biomass, non-fossil fuel based cogeneration	20
	Small hydro	35
Technology-wise Net Tariff	Not available	

Capital Cost	Technology	Capital Cost (in Rs. lakh/MW)
	Wind	620.00
	Biogas	1190.00
	MSW	1500.00
	RDF	900.00
	Small hydro (below 5 MW)	650.00
	Small hydro (5 MW to 25 MW)	595.00
	Solar PV	605.85
	Solar thermal	1200.00
	Biomass Rankine cycle using other than rice straw and juliflora with water cooled condenser.	560.00
	Biomass Rankine cycle using other than rice straw and juliflora with air cooled condenser.	600.00
	Biomass Rankine cycle using rice straw and juliflora with water cooled condenser.	611.00
	Biomass Rankine cycle using rice straw and juliflora with air cooled condenser.	653.00
	Biomass gasifier	593.00
	Non-fossil fuel based cogeneration	453.00
<ul style="list-style-type: none"> • All capital costs except for solar PV and thermal projects are for FY 2016-17. For solar PV and thermal projects the period is FY 2015-16. • Capital costs for subsequent years for MSW, RDF, solar PV and solar thermal will be revised every year while those of other technologies shall be linked to the indexation formula as per regulations. 		

	Technology	O&M (in Rs. lakh/MW)
Operation and Maintenance (O&M) Expenses	Wind	12.00
	Biogas	50.00
	MSW	95.00
	RDF	54.00
	Small hydro (below 5 MW)	24.98
	Small hydro (5 MW to 25 MW)	17.48
	Solar PV	11.88
	Solar thermal	17.16
	Biomass Rankine cycle	47.00
	Biomass gasifier	50.00
	Non-fossil fuel based cogeneration	20.00
	• O&M cost is escalated at 5.72% per annum.	
	Interest Rate on Loan	Average State Bank of India base rate prevalent during the first six months of the previous year plus 300 basis points.
Depreciation	5.83% for first 12 years and remaining depreciation spread over the residual useful life of the project.	
Return on Equity	<ul style="list-style-type: none"> • 20% per annum for first 10 years. • 24% per annum for 11th year onwards. 	
Interest on Working Capital	Average State Bank of India base rate prevalent during the first six months of the previous year plus 350 basis points.	

OTHER PROVISIONS

Tariff structure and design	Generic, single part, levellised tariff.
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Merit order despatch principle	<ul style="list-style-type: none"> • All renewable power plants of capacity 10 MW and above except wind, biomass and cogeneration are ‘Mustrun’ power plants. • Wind power plants with sum of generation capacity of 10 MW and above and connected at 33 KV and above shall be subject to scheduling. • Solar plants of capacity 5MW and above connected at 33 KV level shall be subject to scheduling and dispatch code. • Biomass plants with capacity of 10 MW and above and non-fossil fuel based cogeneration plants shall be subject to scheduling and dispatch code.
Subsidy or/and incentives by government	<ul style="list-style-type: none"> • Subsidy or incentives, including accelerated depreciation benefit, shall be considered for tariff determination. • Projects are eligible for incentives announced in Jharkhand Industrial Policy, 2012. • 50% exemption from electricity duty for a period of 10 years and 5 years for renewable based power plants and captive power plants (set up by new and existing industrial units) respectively. • Solar projects are eligible for incentives under State Solar Policy, 2015.
Rebate	<ul style="list-style-type: none"> • 2% rebate - for payment through Letter of Credit within one month of presentation of bills. • 1% rebate - for payment not through Letter of Credit within one month of presentation of bills.
Late payment surcharge	1.25% per month for delay beyond 60 days of billing.
Links	http://jserc.org/regulation.aspx
References	http://jserc.org/pdf/draft_regulations/draft_biogas.pdf http://jserc.org/pdf/draft_regulations/draft_smallhydropower.pdf http://jserc.org/pdf/regulations/48_2_2016.pdf http://jserc.org/pdf/draft_regulations/draft_biomass.pdf