MEGHALAYA STATE ELECTRICITY REGULATORY COMMISSION

(Terms and Conditions for determination of Tariff for Generation from Renewable Energy Sources) Regulations, 2014, Dated: 11-11-2014

<table>
<tr><th>Sl. No.</th><th>Description</th><th colspan="3">Summary</th></tr>
<tr><td>1.</td><td>Control Period</td><td colspan="3">3-Years (11-11-2014 to 31-03-2017)</td></tr>
<tr><td>2.</td><td>Obligations and duties of the Generating Station</td><td colspan="3">The RE based Generating Stations shall pay fee and charges to the State Load Dispatch Centre as may be specified or directed by the Commission from time to time.</td></tr>
<tr><td rowspan="5">3.</td><td rowspan="5">Tariff Period</td><td>Sr. No.</td><td>RE Technology</td><td>Tariff Period (in Years)</td></tr>
<tr><td>1.</td><td>Small Hydro (below 5 MW)</td><td>35</td></tr>
<tr><td>2.</td><td>Solar PV and Solar Thermal</td><td>25</td></tr>
<tr><td>3.</td><td>Biomass and Biomass Gasifier</td><td>20</td></tr>
<tr><td colspan="3">The Tariff Period for Renewable Energy power projects except in case of Small hydro projects below 5 MW, Solar PV, Solar thermal, Biomass Gasifier, Biogas based power projects shall be for a minimum period of thirteen (13) years.</td></tr>
<tr><td>4.</td><td>Generic Tariff</td><td colspan="3">The tariff determined being normative, no true up of any parameter, including additional capitalization, for what so ever reasons shall be taken up during the validity of the tariff; any short fall or gain due to performance or other reasons is to be borne / retained by the RE based generating stations.</td></tr>
<tr><td>5.</td><td>Tariff Structure</td><td colspan="3">1. The tariff for sale of energy from renewable energy technologies shall be single-part tariff (in Rs./kWh) and ex-bus consisting of the following fixed cost components;
(a) Interest on loan capital;
(b) Depreciation;
(c) Return on equity;
(d) Interest on working capital;
(e) Operation and maintenance expenses;
2. For RE technologies having fuel cost component, like biomass power projects and non-fossil fuel based co-generation projects, single-part tariff with two components, viz., fixed cost component and fuel cost component, shall be determined.</td></tr>
<tr><td>6.</td><td>Tariff Design</td><td colspan="3">1. The generic tariff shall be determined on levellised basis for the Tariff Period
2. Levellisation shall be carried out for the ‘useful life’ of the Renewable Energy Project, while tariff shall be specified for the period equivalent to ‘Tariff Period’.</td></tr>
<tr><td>7.</td><td>Discount Factor for Levellised Tariff</td><td colspan="3">Discount factor equivalent to Post Tax weighted average cost of capital.</td></tr>
<tr><td>8.</td><td>Levellised Tariff</td><td colspan="3">Levellised tariff is calculated by carrying out levellisation for ‘useful life’ of each technology considering the discount factor for time value of money.</td></tr>
<tr><td rowspan="7">9.</td><td rowspan="7">Capital Cost</td><td>Sr. No.</td><td>RE Technology</td><td>Capital Cost (in Rs. Lakhs/MW)</td></tr>
<tr><td>1.</td><td>Wind Energy</td><td>565</td></tr>
<tr><td rowspan="3">2.</td><td>Small hydro Projects</td><td></td></tr>
<tr><td>Below 5 MW</td><td>770</td></tr>
<tr><td>5 Mw to 25 MW</td><td>700</td></tr>
<tr><td>3.</td><td>Biomass Power Projects</td><td>445</td></tr>
<tr><td>4.</td><td>Solar PV Power Projects</td><td>650</td></tr>
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<tr><td></td><td></td><td>5.</td><td>Solar Thermal Projects</td><td>1200</td></tr>
<tr><td></td><td></td><td>6.</td><td>Biomass Gasifier Power Projects</td><td>400</td></tr>
<tr><td>10.</td><td>Debt - Equity Ratio</td><td colspan="3">70: 30
If the equity actually deployed is more than 30% of the capital cost, the amount of equity for the purpose of tariff determination shall be limited to 30% and the balance equity in excess of 30% shall be treated as normative loan.</td></tr>
<tr><td>11.</td><td>Loan tenure</td><td colspan="3">12 - Years</td></tr>
<tr><td>12.</td><td>Interest Rate on Loan Capital</td><td colspan="3">For the purpose of computation of tariff, the normative interest rate shall be considered as average State Bank of India Base Rate prevalent during the first six months of the previous year plus 150 basis points.</td></tr>
<tr><td>13.</td><td>Depreciation</td><td colspan="3">1. The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset.
2. 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 13th year onwards.</td></tr>
<tr><td>14.</td><td>Return on Equity</td><td colspan="3">1. The value base for the equity shall be 30% of the capital cost for generic tariff determination
2. The normative Return on Equity shall be: 16%</td></tr>
<tr><td>15.</td><td>Interest on Working Capital</td><td colspan="3">Rate of Interest on Working Capital shall be at interest rate equivalent to average State Bank of India Base Rate prevalent during the first six months of previous year plus 100 basis points.</td></tr>
<tr><td>16.</td><td>Operation and Maintenance Expenses</td><td colspan="3">Normative O&M expenses allowed during first year of the Control Period under these regulations shall be escalated at the rate of 5.72% per annum to determine the O&M expenses for different years of the Tariff Period.
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<tr><th>Sr. No.</th><th>RE Technology</th><th>O&M Expenses (in Rs.Lakhs/MW)</th></tr>
<tr><td>1.</td><td>Wind Energy</td><td>7.26</td></tr>
<tr><td rowspan="3">2.</td><td>Small Hydro Projects</td><td></td></tr>
<tr><td>Below 5 MW</td><td>23.47</td></tr>
<tr><td>5 Mw to 25 MW</td><td>16.77</td></tr>
<tr><td>3.</td><td>Biomass Power Projects</td><td>24</td></tr>
<tr><td>4.</td><td>Solar PV Power Projects</td><td>11.0</td></tr>
<tr><td>5.</td><td>Solar Thermal Projects</td><td>15.00</td></tr>
<tr><td>6.</td><td>Biomass Gasifier Power Projects</td><td>30.00</td></tr>
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<tr><td>17.</td><td>Rebate</td><td colspan="3">1. For payment of bills of the generating company through letter of credit, a rebate of 2% shall be allowed.
2. Where payments are made other than through letter of credit within a period of one month of presentation of bills by the generating company, a rebate of 1% shall be allowed</td></tr>
<tr><td>18.</td><td>Late payment surcharge</td><td colspan="3">In case the payment of any bill for charges payable under these regulations is delayed beyond a period of 60 (sixty) days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the generating company.</td></tr>
<tr><td>19.</td><td>Sharing of CDM Benefits</td><td colspan="3">1. 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;
2. 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.</td></tr>
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20.	**Subsidy or incentive by the Central/State Government**	The Commission shall take into consideration any incentive or subsidy offered by the Central or State Government, including accelerated depreciation benefit for the renewable energy power plants while determining the tariff under these Regulations.		
21.	**Taxes and Duties**	The taxes and duties levied by the appropriate Government on generation and sale of electricity from renewable energy project shall be allowed as pass through on actual incurred basis subject to production of documentary evidence by the generating company.		
22.	**Capacity Utilisation Factor/Plant Load Factor**	**Sr. No.**	**RE Technology**	**CUF/PLF**
		1.	Wind Energy Annual Mean Wind Power Density Watt / M2	
			Upto 200	20 %
			201-250	22 %
			251-300	25 %
			301-400	30 %
			Above 400	32 %
		2.	Small Hydro Projects	45%
		3.	Biomass Power projects	
			During Stabilization	60%
			During the remaining period of the first year (after stabilization)	70%
			From 2nd Year onwards	80%
		4.	Solar PV Power Projects	19 %
		5.	Solar Thermal Projects	23%
		6.	Biomass Gasifier Power Projects	85%
23.	**Auxiliary Consumption**	**Sr. No.**	**RE Technology**	**Auxiliary Rate**
		1.	Small Hydro Projects	1.0%
		2.	Biomass Power Projects	10%
		3.	Solar Thermal Projects	6.5%
		4.	Biomass Gasifier Power Projects	10%
24.	**Fuels**	**Sr. No.**	**RE Technology**	**Quantity**
		1.	**Biomass Power Projects**	
			Station Heat Rate	4000 kcal/kWh
			Calorific Value	3467 kcal/kg
			Fuel Cost	2018 Rs./MT (Escalation factor-5%)
		2.	**Biomass Gasifier Power Projects**	
			Specific Fuel Consumption	1.1kg per kWh.