

**Nagaland Electricity Regulatory Commission**  
**(Terms and Conditions for Determination of Generation Tariff for Renewable Energy)**  
**Regulations, 2011**

**HIGHLIGHTS**

<b>Tariff period</b>	<ul style="list-style-type: none"> <li>• 35 years - small hydro below 5 MW and mini/Micro hydro.</li> <li>• 25 years - solar PV, solar thermal and other small solar projects.</li> <li>• 20 years - biomass gasifier and biogas.</li> <li>• 13 years -other technologies.</li> </ul>
<b>Control Period</b>	<ul style="list-style-type: none"> <li>• 3 years (first year upto end of FY 2014-15).</li> <li>• Till the next notification, this shall be continued.</li> </ul>
<b>Useful Life of a Plant</b>	<ul style="list-style-type: none"> <li>• 35 years - mini/micro and small hydro.</li> <li>• 25 years - wind, solar PV (rooftop and small ground-mounted), solar thermal and other solar technologies.</li> <li>• 20 years - biomass power projects, non-fossil fuel based cogeneration.</li> </ul>
<b>Technology-wise Tariff</b>	<ul style="list-style-type: none"> <li>• Project specific tariff, for generation of electricity from renewable energy sources on case-to-case basis, in accordance with relevant Regulations/Orders.</li> <li>• The financial norms as specified under Tariff Regulations, except for capital cost and O&amp;M cost, shall be ceiling norms while determining the project specific tariff.</li> </ul>

<b>Capital Cost</b>	<b>Technology</b>	<b>Capital Cost (Rs. lakh/MW)</b>
	Wind (FY 2010-11)	467
	Small hydro below 5 MW	635
	Small hydro (5 MW to 25 MW)	571
	Biomass based on Rankine cycle technology (with water cooled condenser)	403
	Non-fossil fuel cogeneration	398
	Solar PV	1690
	Solar thermal	1530
	Biomass gasifier	550
	All capital costs (in Rs. lakh/MW) are for first year of control period (FY 2010-11).	
<b>Operation and Maintenance Expenses (O&amp;M)</b>	<b>Technology</b>	<b>Cost (Lakh Rs./ MW/Year )</b>
	Wind	6.87
	Small hydro below 5 MW	22.20
	Small hydro (5 MW to 25 MW)	15.86
	Biomass based on Rankine cycle technology	21.41
	Non-fossil fuel based cogeneration	14.11
	Solar PV	9.00
	Solar thermal	13.00
First year of control period (FY 2010-11), and escalated @ 5.72% per annum over the tariff period.		
<b>Interest Rate on Loans</b>	<ul style="list-style-type: none"> <li>• Loan repayment period - 10 years. No moratorium considered.</li> <li>• Long-term prime lending rate (LTPLR) of State Bank of India (SBI) prevalent during the previous year plus 150 basis points.</li> </ul>	
<b>Depreciation</b>	<ul style="list-style-type: none"> <li>• Maximum- 90%. Salvage value -10%.</li> <li>• 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.</li> <li>• 7% p.a. for first 10 years for project, balance shall be spread over the remaining useful life of the project from 11th year onwards.</li> </ul>	

<b>Return on Equity</b>	<ul style="list-style-type: none"> <li>• Value base of equity: 30% of capital cost or actual equity.</li> <li>• Normative RoE: Pre-tax 19% p.a. for first 10 years, and 24% p.a. from 11th year onwards.</li> </ul>
<b>Interest on Working Capital</b>	Average State Bank short-term PLR (SBAR) during the previous year plus 100 basis points.

## OTHER PROVISIONS

<b>Tariff Structure and Design</b>	<ul style="list-style-type: none"> <li>• Single part, levelised, project specific tariff, for generation of electricity from renewable energy sources on case-to-case basis, in accordance with relevant Regulations/Orders.</li> <li>• The financial norms as specified under Tariff Regulations, except for capital cost and O&amp;M cost, shall be ceiling norms while determining the project specific tariff.</li> </ul>
<b>Merit Order Despatch Principle</b>	<ul style="list-style-type: none"> <li>• All renewable energy power plants, except biomass plants of 10MW and above and non-fossil fuel cogeneration plants, are treated as 'Must Run' power plants.</li> <li>• Biomass plants with capacity above 10MW shall be subject to scheduling.</li> </ul>
<b>Subsidy or/and Incentives by government</b>	Any incentive or subsidy provided by the central or state government including accelerated depreciation benefit would be taken into consideration.
<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>Links</b>	<a href="http://www.nerc.org.in/index.php?option=com_content&amp;view=category&amp;layout=blog&amp;id=41&amp;Itemid=2">http://www.nerc.org.in/index.php?option=com_content&amp;view=category&amp;layout=blog&amp;id=41&amp;Itemid=2</a>
<b>References</b>	Nagaland Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff for Renewable Energy) Regulations, 2011 <a href="http://www.nerc.org.in/images/nercdoc/7.doc">www.nerc.org.in/images/nercdoc/7.doc</a>