

## DELHI ELECTRICITY REGULATORY COMMISSION

### Terms & Conditions For Determination of Tariff For Grid-Connected Solar Photovoltaic Project - Regulations, 2013 Notification Dated: January 8, 2013

Sl. No.	Description	Summary
1.	<b>Title</b>	Delhi Electricity Regulatory Commission (Terms & Conditions for Determination of Tariff for Grid-connected Solar Photovoltaic Project) Regulations, 2013
2.	<b>Definitions and Interpretation</b>	As per Regulations
3.	<b>Scope and Extent of Application</b>	To be applicable to all Grid connected SPV projects for which Tariff is determined by the Commission under section 62 read with section 86 of the Act subject to eligibility criteria
4.	<b>Eligibility Criteria</b>	Grid connected SPV projects equal to or more than 25kWp based on SPV technology approved by MNRE
5.	<b>Control Period or Review Period</b>	<p>The control period or review period under these Regulations shall be of three years, of which the first year shall be the financial year 2012-13</p> <ul style="list-style-type: none"> <li>• Provided that the tariff determined under these Regulations for the Solar PV power projects commissioned during this control period, shall continue to be applicable for the entire duration of the Tariff Period as specified at S. No. 7 below;</li> <li>• Provided further that the ceiling limit in respect of the capital cost and the interest rate for Solar PV power projects may be reviewed annually by the Commission;</li> <li>• Provided also that in case of Regulations for the next control period are not notified until commencement of next control period, the tariff norms as per these Regulations shall continue to remain applicable until notification of the revised Regulations subject to adjustments as per revised Regulations.</li> </ul>
6.	<b>Petition and Proceedings for Determination of Tariff</b>	As per Regulations
7.	<b>Tariff Period</b>	25 years from the date of commercial operation of the Solar PV power projects;
8.	<b>Project Specific Tariff</b>	The Commission shall determine the project specific tariff, on case to case basis, for Solar PV power projects set up in the NCT of Delhi, which shall be subject to such terms and conditions as stipulated under relevant orders of the Commission.
9.	<b>Tariff Structure</b>	<p>The tariff for grid-connected solar PV power projects shall be single part tariff consisting of following cost components:</p> <ol style="list-style-type: none"> <li>(a) Return on Equity;</li> <li>(b) Interest on loan capital;</li> <li>(c) Depreciation;</li> <li>(d) Interest on working capital; and</li> <li>(e) Operation and maintenance expenses.</li> </ol>
10.	<b>Tariff Design</b>	<ol style="list-style-type: none"> <li>1. The tariff shall be determined on levelised basis for the tariff period; and, for the purpose of levelised tariff computation, discount factor equivalent to Post tax Weighted Average Cost of Capital (WACC) shall be considered;</li> <li>2. Levelisation of tariff shall be carried out for the 'useful life' of the Renewable Energy Project while Tariff shall be specified for the period equivalent to the 'Tariff Period'.</li> </ol>
11.	<b>Dispatch Principles</b>	All grid-connected solar PV power projects shall be treated as 'MUST RUN' power plants and not subjected to 'merit order dispatch' principles.
12.	<b>Quantum of Purchase of Electricity from Solar Energy</b>	As specified in the Delhi Electricity Regulatory Commission (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012.

13.	<b>Capital Cost</b>	<p>1. The capital cost shall be inclusive of all capital work including plant and machinery, civil work, erection and commissioning, financing costs, interest during construction, and evacuation infrastructure up to interconnection point.</p> <p>2. The normative Capital cost ceiling limit for setting up of Solar Photovoltaic Power projects shall be Rs.1000 lakh/MW for the FY 2012-13. Provided that the capital cost ceiling limit for Solar PV power projects may be reviewed annually by the Commission.</p>
14.	<b>Debt Equity Ratio</b>	<p>For the purpose of determination of tariff, the following provisions shall apply:</p> <p>(a) If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.</p> <p>(b) Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff.</p> <p>(c) Provided further that the equity invested in the foreign currency shall be designated in Indian rupees on the date of each investment.</p>
15.	<b>Loan and Finance Charges</b>	<p>Loan Tenure - 12 years for the purpose of determination of tariff.</p> <p>Interest Rate -</p> <p>(a) The loans arrived at in the manner indicated above shall be considered as gross normative loan for calculation of interest on loan. The normative loan outstanding as on April 1<sup>st</sup> of every year shall be worked out by deducting the cumulative repayment up to March 31<sup>st</sup> of previous year from gross normative loan</p> <p>(b) For the purpose of computation of tariff, the normative interest rate shall be considered as an average of State Bank of India (SBI) Base rate prevalent during the first six months of the previous year plus 300 basis points.</p> <p>(c) Notwithstanding any moratorium period availed by the project developer, the repayment of loan shall be considered from the first year of commercial operation of the project.</p>
16.	<b>Depreciation</b>	<p>1. The value base for the purpose of depreciation shall be the capital cost of the asset approved by the Commission. 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.</p> <p>2. Depreciation per annum shall be based on "Differential Depreciation Approach" over the loan tenure and period beyond loan tenure over the useful life computed on 'Straight Line Method'. The depreciation rate for first 12 years of the tariff period shall be 5.83% per annum and the remaining depreciation shall be spread over the useful life of the project from 13th year onwards.</p> <p>3. Depreciation shall be chargeable from first year of commercial operation. Provided that in case of the commercial operation of the asset for part of the year, depreciation shall be charged on pro-rata basis.</p>
17.	<b>Return on Equity</b>	<p>The value base for the equity shall be 30% of the capital cost or actual equity (in case of project specific tariff determination)</p> <p>The normative return on equity shall be:</p> <p>(a) Pre-tax 20% per annum for first 10years.</p> <p>(b) Pre-tax 24% per annum 11<sup>th</sup> year onwards.</p>
18.	<b>Interest on Working Capital</b>	<p>The Working Capital to be computed:</p> <p>(a) Operation &amp; Maintenance expenses for one month;</p> <p>(b) Receivables equivalent to Two (2) months of energy charges for sale of electricity calculated on the normative Capacity Utilisation Factor;</p> <p>(c) Maintenance spares @ 15% of operation and maintenance expenses;</p> <p>Interest on Working Capital shall be at interest rate equivalent to an average State Bank of India Base Rate prevalent during the first six months of the previous year plus 350 basis points.</p>
19.	<b>Operation and Maintenance Expenses</b>	<p>1. 'Operation and Maintenance or O&amp;M expenses' shall comprise of repair and maintenance (R&amp;M), establishment including employee expenses, and administrative and general expenses including insurance as specifically defined under Regulation</p> <p>2. The normative Operation &amp; Maintenance Expenses shall be Rs.11 Lakhs/MW for the 1<sup>st</sup> year of operation and shall be escalated at the rate of 5.72% per annum over the Tariff Period (from the 2<sup>nd</sup> year onwards).</p>

20.	<b>Technology</b>	Norms for Solar PV power projects under these Regulations shall be applicable for grid connected PV system that directly convert solar energy into electricity and are based on technologies such as crystalline Silicon or thin film etc. as may be approved by the Ministry of New and Renewable energy of the Government of India. Under these Regulations, the solar PV power projects with installed capacity below 1MWp shall be connected to the grid at LT/HT network; and, Solar PV power projects with installed capacity of 1 MWp and above shall be connected to HT network.
21.	<b>Life of Plant and Machinery</b>	25 years.
22.	<b>Capacity Utilization Factor (CUF)</b>	19%
23.	<b>Metering Arrangement</b>	Refer Regulations
24.	<b>Billing and Payment</b>	1. Billing of the energy shall be carried out on a monthly basis; 2. Solar Project developer shall raise the bill to the distribution licensee every month for the energy supplied; 3. The payments to the project developers in respect of the energy supplied shall be made by the Distribution Licensee within 60 days from the date of the bill.
25.	<b>Late Payment Surcharge</b>	For any delayed payment beyond a period of 60 days from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by the project developer, calculated on daily basis
26.	<b>Rebate</b>	1. For payment of bills of the Solar PV power projects through letter of credit, a rebate of 2% shall be allowed. 2. In case of recognised inter- bank e transfers, a Rebate of 2% may be allowed in accordance with the commercial arrangement as mutually agreed upon between the Solar Project Developer and the Distribution licensee. 3. Where payments are made other than through letter of credit within a period of one month of presentation of bills by the Project Developer, a rebate of 1% shall be allowed.
27.	<b>Subsidy/Incentive by the Central/State Government</b>	The Commission shall take into consideration any incentive or subsidy offered by the Central or the Government of NCT of Delhi, including Generation Based Incentive (GBI) or accelerated depreciation benefit if availed by the project developers for such projects while determining the tariff under these Regulations.
28.	<b>Taxes and Duties</b>	Tariff determined under these Regulations shall be exclusive of taxes and duties as may be levied by the appropriate Government. Provided that the taxes and duties levied by the appropriate Government shall be allowed as pass through on actual incurred basis.
29.	<b>Sharing of CDM Benefits</b>	1. All risks, costs and efforts in developing such projects as CDM projects shall remain with the Project Developer/lead entity as the case may be, who is responsible for developing and registering these projects as CDM projects. 2. The proceeds of the carbon credit from approved CDM Project shall be shared between the project developers and concerned Distribution Licensee in following manner, namely- (a) 100% of the gross proceeds on account of CDM benefit to be retained by the developer in first year after the date of commercial operation of the generating station. (b) 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 generating company and the beneficiaries. Provided that the entire benefits obtained by the Distribution Licensee shall be fully passed on to the consumers.
30.	<b>Investment in the Grid Augmentation</b>	The cost of any augmentation required after the interconnection point in the system of the distribution licensee shall be borne by the concerned Distribution Licensee. Provided that such investments as may be approved by the Commission, shall be a pass through in the Annual Revenue Requirement of such distribution licensee.

<b>31.</b>	<b>Procedures for Interconnectivity with the Grid</b>	As Per Regulations
<b>32.</b>	<b>Communication Facilities</b>	As Per Regulations
<b>33.</b>	<b>Power Quality &amp; Protection and Controls</b>	As Per Regulations
<b>34.</b>	<b>Power to Remove Difficulties</b>	Vested with the Commission
<b>35.</b>	<b>Power to Relax</b>	Vested with the Commission
<b>36.</b>	<b>Interpretation</b>	Vested with the Commission
<b>37.</b>	<b>Power to Amend</b>	Vested with the Commission