

# HARYANA ELECTRICITY REGULATORY COMMISSION

## (Rooftop Solar Grid Interactive Systems Based on Net Metering) Regulations, 2019, dated: 25.10.2019

Sl. No.	Description	Summary
1.	<b>Control Period</b>	The Regulations shall come into force from the date of notification and shall stay in force up to FY 2021-22.
2.	<b>Applicability</b>	<ol style="list-style-type: none"> <li>These Regulations shall apply to all the distribution licensee(s) and consumers of electricity of distribution licensees within the State of Haryana.</li> <li>The eligible consumer may install the rooftop solar system under net metering arrangement which: <ol style="list-style-type: none"> <li>shall be within the permissible rated capacity as defined under these Regulations;</li> <li>shall be located in the consumer premises;</li> <li>shall interconnect and operate safely in parallel with the distribution licensee's network.</li> </ol> </li> <li>The rooftop solar grid interactive system installed in a premises by an eligible consumer of distribution licensee may be self-owned or third party owned.</li> <li>The rooftop space available in the Government organizations/ institutions/ buildings can also be provided on lease rent to independent power producers/ RESCO developers for setting up of rooftop solar systems.</li> <li>The facility of Net metering shall not be available to Open Access consumers.</li> <li>These Regulations do not preclude the right of any person or state authorities to undertake rooftop solar projects of capacity above the limit of 2 MWp capacity given in these Regulations through alternative mechanism.</li> </ol>
3.	<b>Network Augmentation</b>	<ul style="list-style-type: none"> <li>In case network augmentation is required for LT consumers the cost of network up-gradation/ augmentation/strengthening shall be completely borne by the distribution licensee.</li> <li>In case network augmentation is required for HT consumers the cost of network up-gradation/ augmentation/strengthening shall be borne by both the eligible consumer and the distribution licensee in the ratio of 50:50.</li> </ul>
4.	<b>Capacity Target for Distribution Licensee</b>	<ol style="list-style-type: none"> <li>The distribution licensees shall continue to provide net metering arrangement to eligible consumers as long as the total capacity (in MW) of rooftop solar systems does not exceed the target capacity determined by the Commission.</li> <li>A maximum cumulative capacity up to 500 MW, including the RTSS capacity already installed, shall be allowed to eligible consumers under net metering, in the State as a whole. This shall be reviewed yearly by the Commission.</li> </ol>
5.	<b>Generation Based Incentives (GBI)</b>	In order to promote Solar Power generation in Haryana through net metering, the distribution licensees shall provide incentive on the power generated through rooftop solar system as may be approved by the Commission in the ARR/Tariff Order for the relevant year. The incentive payable under these Regulations shall be reviewed by the Commission every year along with ARR/Tariff petition for that year.
6.	<b>Eligible Consumers and Project Capacity</b>	<ol style="list-style-type: none"> <li><b>Transformer Loading:</b> The cumulative capacity of rooftop solar systems to be allowed at a particular distribution and power transformer of the distribution/transmission licensee shall not exceed 50% and 30% of the rated capacity of that distribution and power transformer in case of interconnection with the grid at low and high tension respectively or the revised transformer capacity limit as may be determined by the Commission from time to time.</li> <li>The maximum rated capacity of rooftop solar system, to be installed by any eligible consumer in his premises, shall not exceed its connected load in case of Low Tension connection and contract demand in case of High-Tension connection, subject to maximum of 2MW.</li> <li>The eligible consumer is mandatorily to put up 25% battery storage for any incremental capacity from over and above 1 MW and up to 2 MW. This battery shall be able to store and deliver energy for two hours.</li> <li>Minimum rated capacity of rooftop solar system that can be set up under net metering arrangement shall be not less than 1 kW.</li> </ol>
7.	<b>In House Roof Top Solar Monitoring Mechanism</b>	Every distribution licensee shall constitute an in-House Roof Top Solar Monitoring Mechanism, without any additional expenditure, within one month from the date of notification of these Regulations, to promote rooftop solar in Haryana.

8.	<b>Interconnection with the Grid</b>	<ol style="list-style-type: none"> <li>1. The voltage level for interconnection with the grid shall be as specified in the Haryana Electricity Supply Code or the voltage level at which an eligible consumer has been given supply by the distribution licensee.</li> <li>2. The interconnection of the rooftop solar system with the network of the distribution licensee shall conform to the technical standards for connectivity of distributed generation resources specified under the CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013, and subsequent amendments thereof.</li> <li>3. The interconnection of the rooftop solar system with the distribution system of the licensee shall also conform to the relevant provisions of the CEA (Measures Relating to Safety and Electric Supply), Regulations, 2010, as amended from time to time.</li> <li>4. The distribution licensee may call upon the consumer to rectify the defect within a reasonable time.</li> <li>5. The rooftop solar system must be capable of detecting an unintended islanding condition.</li> <li>6. Every rooftop solar system shall be equipped with automatic synchronization device.</li> <li>7. The inverter shall have the features of filtering out harmonics and other distortions before injecting the energy into the system of the distribution licensee.</li> </ol>
9.	<b>Third Party Owned Rooftop Solar PV system based on Net Metering</b>	<ol style="list-style-type: none"> <li>1. The third party owned rooftop solar PV net metering model may consist of the developer or intermediaries leasing out solar PV system to interested rooftop owners.</li> <li>2. In the third party owned solar PV system based on net metering, the electricity generated from such plants/system shall be used to meet the eligible consumer's internal electricity needs, while the excess generation shall be fed into the Grid (network of licensee) on Net Metering basis.</li> <li>3. The developer shall continue to be the owner of equipment in third party owned system, to qualify for claiming depreciation on capital cost for the solar PV system with associated direct tax benefits, if any.</li> </ol>
10.	<b>Metering</b>	<ul style="list-style-type: none"> <li>• The metering system shall be as per CEA (Installation and Operation of Meters) Regulations, 2006, as amended from time to time.</li> <li>• The solar meter (a unidirectional meter) is required to be installed as an integral part of the net metering system at the point at which the electricity is generated by Solar Energy System and delivered to the main panel.</li> <li>• The net metering equipment (Bi-directional meters) and the Solar meter (unidirectional) as per CEA Regulations shall be installed and maintained by the distribution licensee at the cost of the eligible consumer.</li> <li>• In case the eligible consumer is under the ambit of TOD Tariff, the meter compliant of recording time of day consumption/generation shall be installed.</li> <li>• In case of multiple rooftop solar plant within a premise, the Net Meter and the Solar Generation Meter shall be installed at such locations in the premises or outside the premises of the eligible consumer or person as would enable easy access to the distribution licensee's representative for meter reading.</li> </ul>
11.	<b>Energy Accounting - Net Metering Arrangement</b>	<ul style="list-style-type: none"> <li>• Electricity generated from a rooftop solar system shall be cumulatively capped at 90% of the electricity consumption by the consumer at the end of settlement period which shall be the relevant financial year.</li> <li>• The carry forward of excess energy generation shall be allowed from one billing cycle to the next billing cycle up to the end of the same financial year. Any excess generation (above 90%) at the end of the financial year shall not be offset against the consumer's consumption. There shall be no carry forward of excess energy to the next financial year.</li> <li>• In case the eligible customer is under the ambit of time of day tariff, as determined by the Commission, the electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity injection in the same time block. Any excess injection over consumption in any time block in a billing cycle shall be carried forward to the corresponding time block in the subsequent month for adjustment purpose against energy supply at the lowest applicable Tariff across all the slots.</li> <li>• The excess injected electricity measured in kilowatt hour (kWh)/kVAh shall only be utilized to offset the consumption measured in kWh/kVAh and shall not be utilized to compensate any other fee and charges imposed by the distribution licensee</li> <li>• Unadjusted net credited units of electricity from solar agricultural pump sets under Net Metering shall be settled by the distribution licensee at the end of settlement period @ Rs.1 per unit.</li> </ul>

		<ul style="list-style-type: none"> <li>Regardless of availability of electricity credits with the eligible consumer during any billing period, the consumer will continue to pay applicable charges such as fixed/demand charges, Government levy, etc.</li> </ul>
12.	<b>Applicability of Other Charges</b>	The rooftop solar system commissioned under these Regulations, whether self-owned or third party owned installed on the premises, shall be exempted from all wheeling, cross subsidy, transmission and distribution, and banking charges and surcharges.
13.	<b>Energy Accounting During Meter Defect/Failure/Burnt</b>	<ol style="list-style-type: none"> <li>In case of defect/failure/burnt of the net meter, the rooftop solar system owner shall report the failure to the distribution licensee in the specified format of distribution licensee.</li> <li>During the period the meter remained defective, the distribution licensee may consider the energy generated by the rooftop solar for the solar energy generation benefits by considering 14% CUF.</li> </ol>
14.	<b>Application Fee</b>	<ul style="list-style-type: none"> <li>The eligible consumer (applicant) may either apply online on the distribution licensee website and/or HAREDA website or submit the application in the prescribed form in the concerned subdivision. The application shall be accompanied with processing fee of Rs.1000/-.</li> <li>In case the technical feasibility is negative/non-satisfactory, the application shall stand rejected and fee shall be refunded within 7 days.</li> </ul>
15.	<b>Work Completion and Commissioning</b>	<ul style="list-style-type: none"> <li><b>For system size greater than 20 kWp:</b> The applicant shall submit the Work Completion Report to the Office of Directorate of Electrical Safety, Government of Haryana (in case the project size is greater than 100 kWp) or to Chartered Engineers (as per the prevailing Sales circular/ instructions) for project size less than 100 kWp but above 20 kWp, with a copy to the distribution licensee. In case the consumer is availing subsidy, the work completion report is also to be shared with HAREDA.</li> <li><b>For system size less than 20 kWp:</b> The applicant shall submit the Work Completion Report to the distribution licensee. In case the consumer is availing subsidy, the work completion report is also to be shared with HAREDA.</li> </ul>
16.	<b>Renewable Purchase Obligation</b>	<ul style="list-style-type: none"> <li>The quantum of electricity consumed by eligible consumer, who is not defined as obligated entity, from the rooftop solar system under net metering arrangement shall qualify towards compliance of Renewable Purchase Obligation (RPO) for the distribution licensee.</li> <li>In case of agriculture pump set up under net metering, all the solar energy generated by these pumps will be accounted towards incumbent DISCOMs RPO compliance.</li> </ul>