

## JAMMU & KASHMIR STATE ELECTRICITY REGULATORY COMMISSION

### (Grid Interactive Rooftop Solar Photo Voltaic Systems based on Net Metering) Regulations - 2015; Notification No.: 47-JKSERC of 2015 Dated: 15.10.2015

Sl. No	Description	Summary
1	<b>Short Title, Extent and Commencement</b>	<ul style="list-style-type: none"> <li>• JKSERC (Grid Interactive Rooftop Solar Photo Voltaic Systems based on Net Metering) Regulations- 2015 Dated 15.10.2015.</li> <li>• Regulations to come into force from the date of their publication in Official Gazette</li> </ul>
2	<b>Definitions and Interpretations</b>	<ul style="list-style-type: none"> <li>• “Act” means the Jammu and Kashmir Electricity Act-2010 (Act XIII of 2010), as amended from time to time;</li> <li>• As per Regulations</li> </ul>
3.	<b>Scope and Application</b>	<p>Applicable to:</p> <ul style="list-style-type: none"> <li>• Distribution Licensee and consumers of such Distribution Licensee in the State of Jammu &amp; Kashmir.</li> <li>• Any consumer in the area of supply of Distribution Licensee may install Rooftop Solar system under net metering arrangement which:               <ul style="list-style-type: none"> <li>– Shall be of minimum 1 kWp &amp; up to 1 MWp (AC side) capacity with or without battery backup support.</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> </ul> </li> <li>• These Regulations do not preclude the right of any person to undertake Rooftop Solar projects above 1 MWp capacity through alternative mechanism.</li> <li>• Net metering also applicable to consumers who have installed the system before commencement of these Regulations subject to compliance of these Regulations</li> </ul>
4	<b>General Principles</b>	<p>Distribution Licensee shall offer net metering arrangement to the eligible consumer, installing Grid connected Rooftop Solar system, in its area of supply on non-discriminatory and first come first serve basis subject to target capacity:</p> <p>Provided:</p> <ul style="list-style-type: none"> <li>• The consumer is eligible to install the grid connected Rooftop Solar system of the rated capacity as specified in these Regulations:</li> <li>• Distribution licensee to offer net metering to the consumer for the target capacity</li> <li>• Interconnection of system with the grid is as per CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations- 2013, as amended from time to time</li> <li>• Distribution licensee to accept the SPV power as per the useful life of the SPV system as per CERC Regulations.</li> </ul>
5.	<b>Capacity of Transformer</b>	<ul style="list-style-type: none"> <li>• Licensee to provide net metering to consumers as long as the total capacity(MW) of Rooftop Solar systems does not exceed the target capacity</li> <li>• Target capacity to be reviewed on yearly basis by the Commission</li> <li>• The cumulative capacity at a particular distribution transformer shall not exceed 20% of the rated capacity of the transformer.</li> <li>• Distribution licensee to provide information regarding distribution transformer capacity available for connecting Rooftop Solar system under net metering within 6 months from the date of notification of these regulations. .</li> <li>• Licensee to update the distribution transformer capacity available and the cumulative capacity of the Rooftop Solar systems installed under net metering on yearly basis by 30<sup>th</sup> April and provide the information on its website as well as to the Commission.</li> <li>• All eligible consumers of electricity in the area of the supply of licensee can participate in the Rooftop Solar net metering subject to target capacity.</li> <li>• Maximum capacity of Rooftop Solar system shall not exceed 50% of the sanctioned load of the consumer</li> <li>• Provided that the installed capacity shall not be less than1 kWp and not exceed 1MWp (AC side) for a single eligible consumer:</li> <li>• A variation in the rated capacity of the system within a range of 5% allowed</li> </ul>

6.	<b>Procedure for Application and Registration</b>	<ul style="list-style-type: none"> <li>Eligible Consumer installing a Solar energy system in his premises to apply in the application form (Annexure–II) of Regulations, which the Distribution Licensee shall notify on its website and make available at the sub divisional office of the licensee along with the application/processing fee of Rs.100/kW subject to a maximum of Rs. 10,000.</li> <li>The interconnection agreement (Annexure-III) of Regulations be executed by the Distribution Licensee with the eligible consumer within 30 days of the accord of approval</li> <li>For more Details refer Regulations</li> </ul>												
7.	<b>Interconnection with Grid, Standards and Safety</b>	<ul style="list-style-type: none"> <li>Interconnection of the Rooftop Solar PV system with the distribution system of the Distribution Licensee shall be made as per the technical specifications and standards for connectivity as specified by the Central Electricity Authority.</li> <li>Connectivity with the grid to be: <table border="1" data-bbox="586 594 1390 747"> <thead> <tr> <th>S. No.</th> <th>Connected load of Eligible Consumer</th> <th>Connectivity level</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Up to 5 kW</td> <td>240 V- Single phase</td> </tr> <tr> <td>2</td> <td>Above 5 kW and upto100 kW</td> <td>415 V-Three phase</td> </tr> <tr> <td>3</td> <td>Above 100 kW</td> <td>HT/EHT level</td> </tr> </tbody> </table> </li> <li>The above connectivity norms are applicable to all the Solar power generators who seek connectivity with network of the Distribution Licensees.</li> <li>EHT/HT consumers may install Solar power generators at LT/HT voltage and connect them to their LT/HT system.</li> <li>Interconnection of Roof top PV Solar energy generator with the local licensee's grid, to be as per CEA (Measures relating to Safety and Electric Supply) Regulations -2010</li> <li>Solar generator to be responsible for safe operation, maintenance and rectification of defect of its system up to the interconnection point beyond which the responsibility including the net meter rest with the Distribution Licensee.</li> <li>Consumer to be solely responsible for any accident to human being/animals, that may occur due to back feeding from the Solar Plant when the Grid supply is off.</li> <li>Licensee reserves the right to disconnect the consumer's installation at any time in the event of such exigencies to prevent accident or damage to man and material.</li> <li>Consumer to be responsible to take adequate safety measures to prevent battery power/diesel generator power/backup power, extending to Distribution Licensee's LT grid on failure of licensee's grid supply.</li> <li>Licensee to have the right to disconnect the Roof top PV Solar energy generator from its system at any time in the following conditions: <ul style="list-style-type: none"> <li>Emergencies or maintenance requirement on the licensee's electric system;</li> <li>Hazardous condition existing on the licensee's system due to operation of Solar energy generator or protective equipment as determined by the Distribution / Transmission Licensee/SLDC.</li> <li>Adverse electrical effects on the electrical equipment of the other consumers of the licensee caused by the Solar energy generation as determined by the licensee</li> </ul> </li> <li>Prior to synchronization of the Rooftop PV Solar Power Plant for the first time with electricity system, the applicant and the appropriate licensee shall agree on the protection features and control diagrams.</li> <li>For more Details refer Regulations</li> </ul>	S. No.	Connected load of Eligible Consumer	Connectivity level	1	Up to 5 kW	240 V- Single phase	2	Above 5 kW and upto100 kW	415 V-Three phase	3	Above 100 kW	HT/EHT level
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8.	<b>Third Party Owned Rooftop Solar PV system based on Net Metering</b>	<ul style="list-style-type: none"> <li>Third party owned Rooftop Solar PV net metering may consist of the developer or intermediaries leasing out Solar PV system to interested Rooftop owners.</li> <li>Electricity generated from such plants/system to meet the eligible consumer's internal electricity needs, and the excess generation fed into the Grid (network of licensee) on Net Metering basis.</li> <li>Developer to be the owner of equipment and qualify for claiming depreciation on capital cost for the Solar PV system with associated direct tax benefits.</li> <li>Distribution Licensee to deal with the consumer only and arrangement between Rooftop owner and developer shall be personal to them.</li> </ul>												

9.	<b>Metering Arrangement</b>	<ul style="list-style-type: none"> <li>• Metering system to be as per the Regulations for installation &amp; operation of meters for Rooftop Solar systems under net-metering arrangement specified in these regulations.</li> <li>• Schematic arrangement for interconnection of Rooftop &amp; Small PV Solar Power Plant with the Licensee's grid is at (Annexure-V). There shall be two meters and the metering arrangement to be as per (Annexure-VI). Annexure available in Regulations</li> <li>• Bi-directional (net meter) to be installed at the interconnection point of the Eligible Consumer with the network of the Distribution Licensee</li> <li>• For existing consumers, the consumer meter to be replaced with the bi-directional/ net meter</li> <li>• Consumers having ABT compliant meters not required to install additional net meter.</li> <li>• Solar meter to be installed at the solar facility after the inverter to measure the solar generation and have the facility for downloading meter readings using Meter Reading Instrument (MRI).</li> <li>• Check meters mandatory for Rooftop Solar systems having capacity more than 250 kW.</li> <li>• For installations size of less than and equal to 250 kW, the solar check meters would be optional</li> <li>• Cost of new/additional meter (s) to be borne by the Eligible Consumer and installed &amp; owned by the Distribution Licensee</li> <li>• Meters to be jointly Inspected and sealed on behalf of both the parties and interfered/ tested or checked only in the presence of the representatives of the consumer and Distribution Licensee or as per the supply code specified by the Commission</li> <li>• In case the Eligible Consumer is under the ambit of time of day (TOD) tariff, meters compliant of recording time of day consumption/generation to be employed.</li> <li>• Meter readings taken by the Licensee to form the basis of commercial settlement.</li> <li>• Technical standards for meters shall be as per (Annexure- VII) and shall comply with the standards specified by CEA from time to time. Annexure available in Regulations</li> <li>• Meters installed for Rooftop PV Solar Power Plants with capacity above 250 kWp to have the communication port for exchanging real time information with Licensee.</li> </ul>
10.	<b>Energy Accounting and Settlement</b>	As detailed in the Regulations
11.	<b>Applicability of Other Charges</b>	<ul style="list-style-type: none"> <li>• Rooftop Solar system under net metering both self/third party owned, installed on eligible consumer premises, exempted from various provisions of JKSERC (Terms &amp; Conditions for Intra State Open Access) Regulations - 2015, as amended</li> <li>• Commission may review such exemption from time to time</li> </ul>
12.	<b>Participation under Renewable Energy Certificate (REC) Mechanism</b>	Issuance of REC to be as per CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations - 2010 as amended from time to time
13.	<b>Renewable Power Purchase Obligation (RPO)</b>	Quantum of electricity consumed by the eligible consumer under net metering arrangement who is not defined as Obligated entity, to qualify towards deemed RPO for the Distribution Licensee
14.	<b>Penalty or Compensation</b>	In case of failure to meet the requirements under these regulations for net metering, the Solar power generator to pay penalty as decided by the Commission from time to time.
15.	<b>Termination of Agreement</b>	<ul style="list-style-type: none"> <li>• Eligible consumer may terminate the agreement at any time by giving 30 days prior written notice to the licensee.</li> <li>• If an eligible consumer breaches any term of the agreement and does not remedy the breach within 30 days of receipt of written notice from the Distribution Licensee of the breach or any other valid reason to be recorded in writing</li> <li>• Eligible consumer, upon termination of the agreement, shall disconnect forthwith the photovoltaic system from Licensee's distribution system.</li> </ul>
16.	<b>Power to give Directions</b>	Powers vested with the Commission
17.	<b>Power to Relax &amp; Amend</b>	Powers vested with the Commission