

HARYANA ELECTRICITY REGULATORY COMMISSION

Where the Haryana Electricity Regulatory Commission has published in the Haryana Government Gazette on different dates the following, namely:-

- (Rooftop Solar Grid Interactive System based on Net Metering) Regulations, 2014, (Notification No. HERC/ 31 / 2014, Dated: 25.11.2014)
 - A. (Rooftop Solar Grid Interactive System based on Net Metering) Regulations, 2014, (First Amendment), 2015; (Notification No.: HERC/31/2014/1st Amendment/2015, Dated: 09.06.2015)
 - Inserted/ Replaced matter is shown as []^A at appropriate place; wordings inserted/ replaced shown within square brackets;
In both of above cases; -^A ; superscript A implies that change is caused by Amendment '1'.
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Notification

The 25th November, 2014

Regulation No. HERC/31/2014- In exercise of the powers conferred by Sections 61, 86(1)(e) and 181 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in this behalf, the Haryana Electricity Regulatory Commission hereby makes the following Regulations for the Grid Connected Solar Rooftop Photovoltaic System:

1. Short Title, Commencement and Scope

1. These Regulations shall be called 'The Haryana Electricity Regulatory Commission (Rooftop Solar Grid Interactive System based on Net Metering) Regulations, 2014'.
2. These Regulations shall come into force from the date of publication in the Official Gazette of Haryana.
3. These Regulations shall apply to the distribution licensees and consumers of electricity of distribution licensees of the State of Haryana.

2. Definitions and Interpretations

- 1 In these Regulations, unless the context otherwise requires,
 - (a) **"Act"** means the Electricity Act, 2003 (36 of 2003) and subsequent amendments thereof;
 - (b) **"Agreement"** means an agreement entered into by the distribution licensee and the consumer for net metering connection;
 - (c) **"billing cycle or billing period"** means the period for which regular electricity bills as specified by the Commission, are prepared for different categories of consumers by the licensee;
 - (d) **"Commission"** means the Haryana Electricity Regulatory Commission constituted under the Act;

- (e) **“contracted load”** or **“contract demand”** means the maximum demand in kW or kVA, agreed to be supplied by the licensee and indicated in the agreement executed between the licensee and the consumer;
- (f) **“Electricity Supply Code”** means the Electricity Supply Code specified by the Haryana Electricity Regulatory Commission under Section 50 of the Act and subsequent amendments/re-enactments thereof;
- (g) **“eligible consumer”** means a consumer of electricity in the area of supply of the licensee, who intends to install or has installed a rooftop solar system in his premises, to offset part or all of his own energy requirement;
- (h) **“financial year”** or **“year”** means the period beginning from first day of April in a calendar year and ending with the thirty first day of the March of the next year;
- (i) **“high tension”** means supply at high voltage or extra high voltage;
- (j) **“interconnection point”** means the interface of solar power generation facility under net metering arrangement with the network of licensee and shall normally be the point where meter is installed to measure the energy transfer between the licensee and the consumer;
- (k) **“licensee”** means a distribution licensee as defined in the Act;
- (l) **“low tension”** means supply at low voltage or medium voltage;
- (m) **“net metering”** means an arrangement of energy metering under which rooftop solar system installed at an eligible consumer’s premises delivers solar power simultaneously with the power supplied by the licensee to the consumer’s premises and the net consumption after off-setting the power generated by the solar power system is measured and displayed for the applicable billing period;
- (n) **“obligated entity”** means the entity mandated under clause (e) of subsection (1) of section 86 of the Act to fulfill the renewable purchase obligation and identified under the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2010 and subsequent amendments/re-enactments thereof;
- (o) **“premises”** means rooftops or/and any area on the land, building or infrastructure or part or combination thereof in respect of which a separate meter or metering arrangements have been made by the licensee for supply of electricity;
- (p) **“rooftop solar system”** means the solar photovoltaic power system installed on any part of consumer’s premises that uses solar energy for its direct conversion into electricity;
- (q) **“Renewable Energy Certificate (REC)”** means the certificate issued in accordance with the procedures prescribed in the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and subsequent amendments thereof.
- (r) **“settlement period”** means the period beginning from first of April in a calendar year and ending with the thirty first of the March of the next year i.e same as ‘financial year’;
- (s) **“tariff order”** in respect of a licensee means the most recent order issued by the Commission for that licensee indicating the rates to be charged by the licensee from various categories of consumers for supply of electrical energy and services;

2 All other words and expressions used in these Regulations although not specifically defined herein above, but defined in the Act, shall have the meaning assigned to them in the Act. The other words and expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by the Parliament / State Legislation applicable to the electricity industry in the State shall have the meaning assigned to them in such law.

3. Applicability

1. The eligible consumer may install the rooftop solar system under net metering arrangement which,
 - a) shall be within the permissible rated capacity as defined under these Regulations.
 - b) shall be located in the consumer premises.
 - c) shall interconnect and operate safely in parallel with the licensee's network.
2. The net metering facility shall also be applicable to such consumers who have already installed rooftop solar system subject to compliance of these Regulations.
3. These Regulations do not preclude the right of relevant State authorities to undertake rooftop solar projects above the limit of 1 MWp (Mega Watt Peak) capacity given in Regulation 7.2 below, through alternative arrangements.
4. These Regulations shall not apply to a generator who generates power through rooftop solar system in more than one premises or over a water body, whether moving or static. In such cases if the power generated is 250 kW or above, the generator may enter into a power purchase agreement with the licensee serving that area or go for third party sale through open access. The generator shall inject the entire power generated into the system of the licensee at a single point without permitting any of this power to be consumed in the individual premises. Purchase of such generated power shall entitle the licensee to Renewable Purchase Obligation (RPO) benefits or to the generator for REC as per the Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and subsequent amendments thereof. The cost of the additional equipment required for connectivity in such cases shall be borne by the generator. The licensee shall be under an obligation to buy the solar power generated through rooftop solar system in Haryana up to the ceiling of solar RPO and at rates limited to or lower than the feed in tariff of solar energy.

If the power generated in more than one premises or over a water body whether moving or static or a single premises measured through gross metering is below 250 kW, then the licensee may purchase the generated power through bilateral arrangement with the generator at the mutually agreed tariff. The power so purchased shall also count towards the solar RPO obligation of the licensee.
5. For open access consumers, the facility of net metering shall not be available and they will have to take recourse to Regulation 3.4 above.

4. Application

1. The eligible consumer shall make an application in the prescribed form to the licensee of the area, along with application processing fee of Rs. 1000/-, for seeking permission for installation of rooftop solar system in his premises under net metering arrangement.

A specimen of the application form is attached as Annexure-I to these Regulations.
2. The licensee shall complete the process of verification of the application within 15 days of its receipt.

Permission shall normally be granted within 15 days from the date of submission of the application to the licensee provided there is feasibility for connectivity and subject to capacity limit on the distribution transformer/power transformer and the target capacity of the licensee as given in Regulation 6.1 below.

Thereafter, the required agreement for net metering shall be entered into between the applicant and the licensee.

5. General Principles

The licensee shall offer the provision of net metering arrangement to the consumer, who intends to install grid connected rooftop solar system, in its area of supply on non-discriminatory and first-come- first-served basis.

Provided that the consumer is eligible to install the grid connected rooftop solar system upto the rated capacity as specified under Regulation 7.2 below;

Provided also that the interconnection of such system with the grid is undertaken as specified under the Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 and subsequent amendments thereof.

6. Capacity Targets for Distribution Licensee

~~^1 1. The distribution licensee shall 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;~~

~~Provided a maximum cumulative capacity of 200 MW shall be initially allowed to eligible consumers under net metering, in the area of supply of each licensee, to be reviewed yearly by the Commission;~~

~~Provided that the cumulative capacity of rooftop solar systems to be allowed at a particular distribution transformer/power transformer shall not exceed 15% of the peak capacity of the distribution transformer in case of interconnection with the grid at low tension and 15% of the peak capacity of the power transformer in case of interconnection with the grid at high tension or the revised cumulative capacity as the Commission may decide from time to time.~~

~~2. The licensee shall update the distribution transformer level and power transformer level capacity available for connecting rooftop solar systems under net metering arrangement and the cumulative capacity of the rooftop solar systems installed under net metering arrangement on yearly basis and shall provide the information on its website as well as to the Commission.~~

~~1. *The distribution licensee shall 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*~~

~~*Provided a maximum cumulative capacity of 200 MW shall be initially allowed to eligible consumers under net metering, in the area of supply of each licensee, to be reviewed yearly by the Commission;*~~

~~*Provided that the cumulative capacity of rooftop solar systems to be allowed at a particular distribution transformer/power transformer shall not exceed 30% of the peak capacity of the distribution transformer in case of interconnection with the grid at low tension and 15% of the peak capacity of the power transformer in case of interconnection with the grid at high tension or the revised cumulative capacity as the Commission may decide from time to time.*~~

¹ Omitted and inserted Regulation 6, vide First amendment (A), 2015.

2. *The licensee shall update the distribution transformer level and power transformer level capacity available for connecting rooftop solar systems under net metering arrangement and the cumulative capacity of the rooftop solar systems installed under net metering arrangement on six monthly basis and shall provide the information on its website as well as to the Commission.*^{1A}

7. Eligible Consumer and Individual Project Capacity

1. All consumers of electricity in the area of supply of the licensee can participate in the solar rooftop net metering arrangement subject to target capacity and on first-come-first-served basis.
2. The maximum rooftop solar system capacity to be installed at any eligible consumer premises shall not exceed his connected load in case of Low Tension connection and contract demand in case of High Tension connection.

Provided that the maximum installed capacity shall not exceed 1MWp for a single eligible consumer.

Provided further that a variation in the rated capacity of the system within a range of five percent shall be allowed.

8. Interconnection with the Grid

1. The voltage level for interconnection with the grid shall be as specified under Regulation 3.2 of the Electricity Supply Code or the voltage level at which the eligible consumer has been given supply by the licensee.
2. The interconnection of the rooftop solar system with the network of the distribution licensee shall be made as per the technical standards for connectivity of distributed generation resources specified under the Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 and subsequent amendments thereof. Provided that the rooftop solar system meets with the technical requirements for grid interconnection with the network of the licensee;
3. The interconnection of the rooftop solar system with the distribution system of the licensee shall conform to the relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply), Regulations, 2010, as amended from time to time.
4. The grid interactive rooftop solar system may be installed with or without battery backup.

Provided that where the rooftop solar system is installed with battery backup (full load backup/partial load backup), the inverter shall have separate backup wiring to prevent the battery/decentralized generation power to flow into the grid in the absence of grid supply and manual isolation switch shall also be provided.

5. The consumer shall be responsible for safe operation, maintenance and rectification of any defect of the rooftop solar system upto the point of Net Meter beyond which the responsibility of safe operation, maintenance and rectification of any defect in the system, including the Net Meter, shall be that of the licensee.
6. The licensee shall have the right to disconnect the rooftop solar system at any time in the event of possible threat/damage, from such rooftop solar system to its distribution system, to prevent any accident or damage, without any notice. Subject to Regulation 8.5 above, the licensee may call upon the consumer to rectify the defect within a reasonable time.

9 Energy Accounting and Settlement

1. Energy Accounting

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. In case solar power system is connected to the grid during part of the year, the 90% capping shall be on the electricity consumption from the date of connection (to the grid) to the end of the financial year. 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 to the next financial year.

2. Billing and payment

The consumer shall receive a net import/export bill indicating either net export to the grid or net import from the grid.

In case of net import bill, i.e. electricity supplied by the licensee exceeds the electricity generated by the consumer's solar rooftop system, the licensee shall raise bill for the net electricity consumption after taking into account any carry forward from previous billing periods in the same financial year. If during any billing period, the export of energy exceeds the import of energy, such surplus energy (in KWh/KVAh) injected by the consumer shall be carried forward to the next billing period as energy credit and shown as energy exported by the consumer for adjustment against the energy consumed in subsequent billing periods within the settlement period. No interest shall be payable on this energy credit. Simultaneously licensee shall not levy any charges on the energy injected to the grid.

If the eligible consumer is under the ambit of time of day tariff, the electricity consumption in any time block peak, off-peak or normal shall be first set off with the solar generation in the same time block. Any excess generation over consumption in any time block, over and above the usage in that time block shall be adjusted against energy supplied at the lowest applicable tariff across all the slots.

Provided that the excess electricity measured in kilo-watt hour/KVAh shall only be utilized to offset the consumption measured in kilo-watt hour/KVAh and may not be utilized to compensate any other fee and charges imposed by the licensee as per the order of the Commission.

Provided also that the licensee in addition to consumer tariff shall be eligible to raise invoice for any other charges as allowed by the Commission.

3. Minimum monthly charges (MMC), where applicable, shall continue to be related to total consumption of the consumer and not to the net consumption.
4. The licensee shall accept the solar power as per the useful life of the rooftop solar system unless the solar power generator ceases to be a consumer of the licensee or the rooftop solar system is abandoned earlier.
5. In case of any dispute in billing, the consumer can approach the Consumer Grievances Redressal Forum / Electricity Ombudsman in accordance with the relevant Regulations notified by the Commission.
- ^A[²6. In order to promote Solar Power generation in Haryana through net metering, the licensees shall provide incentive on the power generated through rooftop solar system. Incentive at the

² Inserted a sub-Regulation (6) at the end of the Regulation 9, vide first amendment (A), 2015.

rate of 25 Paise per unit shall be given during the FY 2015-16 on the solar power generated to the extent the same is admissible for off-setting consumer's consumption as per Regulation 9.1. The incentive payable shall be given by way of adjustment in the energy bill in each billing cycle. The incentive payable under these Regulations shall be reviewed by the Commission every year along with ARR/Tariff petition for that year and the incentive payable accordingly for FY 2016-17 onwards.

Provided that the amount of incentive paid by the licensees during the FY 2015-16 shall be made revenue neutral by the Commission while issuing Order on the ARR/Tariff petition of the licensees for the FY 2016-17.

Provided further that the incentive shall be paid only to the eligible consumers who install the rooftop solar system after notification of these Regulations. ^{2]}^A

10. Solar Renewable Purchase Obligation

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) of the licensee.

11. Metering Arrangement

1. Meters shall be provided as specified in the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and subsequent amendments thereof, for the purpose of metering under these Regulations.
2. The net metering arrangement shall be provided with meter/meters which shall provide the following additional information to the licensee for every billing cycle.
 - i) Total energy consumption by the consumer.
 - ii) Energy generated by the solar system.
 - iii) Net energy (Positive or Negative i.e. Positive for the energy supplied by the licensee and Negative for the energy injected into the grid).
3. The cost of new/additional meter(s), including the cost of replacement, shall be borne by the eligible consumer. Meter(s) shall be installed and maintained by the licensee. No meter rentals shall be charged from the consumer.
4. It shall be the licensee's responsibility to satisfy itself regarding the accuracy of the meter(s) before it is installed and the licensee may test the meter(s) before installation.
5. The meters installed shall be jointly inspected and sealed on behalf of both the parties and shall be tested or checked only in the presence of the representatives of the consumer and the licensee and as per procedure specified in the Electricity Supply Code;

Provided that the eligible consumer shall follow the metering specifications, provisions for placement of meter as developed by the licensee from time to time and as per the Electricity Supply Code specified by the Commission;

Provided further that in case the eligible consumer is under the ambit of time of day tariff, meters compliant of recording time of day consumption/generation shall be installed.

6. The meter reading taken by the licensee shall form the basis of all commercial settlements.

12. Connection Agreement

1. The eligible consumer shall enter into a net metering connection agreement with the licensee of the area, on the format enclosed as Annexure – II to these Regulations.
2. The eligible consumer may terminate the agreement at any time by giving 30 days prior written notice to the licensee.
3. The licensee may terminate the agreement with 30 days prior written notice, if eligible consumer breaches any term of the agreement and does not remedy the breach within 30 days of receiving written notice from the licensee of the breach or any other valid reason to be recorded in writing.
4. Eligible consumer, upon termination of the agreement, shall disconnect forthwith the photovoltaic system from licensee's distribution system.

13. Power to Give Directions

The Commission may from time to time issue such directions and orders as considered appropriate for implementation of these Regulations.

14. Removal of Difficulties

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by an order, make such provision, not inconsistent to the provision of the Act and these Regulations, as may appear to be necessary for removing the difficulty.

15. Power to Relax

The Commission may by general or special order, for reasons to be recorded in writing and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these Regulations.

16. Power to Amend

The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations after following the due process.

17. Subsidy

Subsidy, if any, for Rooftop Solar Grid Interactive System based on Net Metering shall be in accordance with the prevailing policy of the Central/State Government or any other agencies such as IREDA/HAREDA/BEE etc.

By the order of the Commission

-Sd-
Secretary
Haryana Electricity Regulatory Commission