



WEST BENGAL ELECTRICITY REGULATORY COMMISSION



Ref No. WBERC/Regulation-64/20-21/5729

Dated, Kolkata, the 11th June, 2020

NOTICE INVITING OBJECTIONS/SUGGESTIONS/COMMENTS

West Bengal Electricity Regulatory Commission draws the attention of all concerned on “Draft West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewal Sources of Energy) (First Amendment) Regulations, 2020” inviting suggestions/ objections/ comments from interested persons/ stakeholders. Interested persons/stakeholders may visit the website of the Commission at www.wberc.gov.in for further details. Interested persons/stakeholders may submit their suggestion/objection/comments on the above Draft Regulation to this Commission by **30.06.2020 (upto 5 P.M.)**.

By Order of the Commission

Place : Kolkata

Dated : 11th June, 2020

Secretary

11/06/20

Publication of Notice

DRAFT

WEST BENGAL ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

No. ___/WBERC

Kolkata, the _____, 2020

In exercise of the powers conferred by sub-section (1) and clauses (zp) of sub-section (2) of section 181, sections 61, 66 read with clause (e) of sub-section (1) of section 86 of the Electricity Act, 2003 (36 of 2003) and all powers enabling it on that behalf, the West Bengal Electricity Regulatory Commission hereby makes the following regulations to amend the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013 published under notification no. 50/WBERC dated 22nd March 2013 (hereinafter referred to as the "Principal Regulation").

1. Short title, extent and commencement:

- 1.1. These Regulations may be called the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (First Amendment) Regulations, 2020.
 - 1.2. These extend to the whole of West Bengal.
 - 1.3. These shall come into force on the date of their publication in the Official Gazette.
2. After clause (xi) of regulation 2.1 of the Principal Regulations the following clause shall be inserted:

(xi)(A) 'Eligible Consumer' means a consumer of electricity in the area of supply of the distribution licensee who has installed or proposes to install a solar PV generating system, having a capacity of 1 kW and above, on a roof-top or any other mounting structure in his premises, to meet all or part or no requirement of electricity of his own use, and to supply to such distribution licensee on net-metering / net-billing basis using the same network. This shall include a consumer catering to a common load such as a Housing Society."

3. After clause (xix) of regulation 2.1 of the Principal Regulations the following clauses shall be inserted:
- (xix)(A) 'Net Billing Arrangement' means an arrangement under which energy generated from solar PV generating system of an eligible consumer is purchased by the distribution licensee and the distribution licensee raises the bills on the consumer for his consumption at the approved grid tariff, after giving credit for total electricity sold out to the distribution licensee against a pre-determined tariff;
 - (xix)(B) 'Net Billing Connection Agreement' means an agreement entered into by a distribution licensee and an eligible consumer for executing a Net Billing arrangement;
 - (xix)(C) 'Net Meter' means a bi-directional energy meter, which is capable of recording both the import and export of electricity;
 - (xix)(D) 'Net Metering Arrangement' means an arrangement under which a solar PV generating system with net meter installed at an eligible consumer's premises, delivers surplus electricity, if any, to the distribution licensee subject to the stipulations explained at Schedule-1;
 - (xix)(E) 'Net Metering Connection Agreement' means an agreement entered into by a distribution licensee and an eligible consumer for executing a Net Metering Arrangement;
4. For clause (xxiii) of regulation 2.1 of the Principal Regulations the following clause shall be substituted:
- “(xxiii) 'Renewable Energy Sources' means sources such as small hydro, wind, solar including its integration with combined cycle, biomass, bio fuel cogeneration, urban or municipal waste and other such sources as approved by the MNRE;”
5. Clauses (xxxvi) and (xxxvii) of regulation 2.1 the Principal Regulations shall be deleted:
6. For Regulations 3.1 of the Principal Regulations the following clause shall be substituted:
- “3.1 All efforts shall be made to meet the targets in the table below by purchase of electricity and/or generation of electricity from cogeneration and / or renewable sources by the distribution licensees, person using power from captive power plant of 1 MW and above and open access consumers, expressed as percentage of their total consumption of electricity in the area of supply of the distribution licensee in a year during the years 2020-21 to 2022-23:*

year	<i>Minimum quantum of purchase (in %) of total consumption from Cogeneration and Renewable energy sources</i>		
	<i>Solar</i>	<i>Non- Solar</i>	<i>Total</i>
2020-21	3.00	9.0	12.00
2021-22	4.50	10.0	14.50
2022-23	6.00	11.0	17.00

The obligation will be on total consumption of electricity excluding consumptions met from hydro sources of power other than small hydro sources:

Provided that distribution licensee shall compulsorily procure 100% power generated from waste to Energy plants in their respective supply area:

Provided further that on achievement of Solar RPO compliance to the extent of 85% and above, remaining shortfall if any, can be met by excess Non-Solar energy purchased beyond specified Non-Solar RPO for that particular year:

Provided further that on achievement of Non-Solar RPO compliance to the extent of 85% and above, remaining shortfall if any, can be met by excess Solar energy purchased beyond specified Solar RPO for that particular year:

Provided further that for distribution licensee such target obligation indicated hereinbefore in the above table shall be considered on the basis of summated energy available as detailed in regulation 3.4 of these regulations.

Provided further that for the purpose of renewable purchase obligation the power purchases under the power purchase agreements already entered into by the distribution licensees and consented to by the Commission shall continue to be made till their present validity, even if the total purchases under such agreements exceed the percentage as specified in regulation 3.1 of these Regulations."

7. For regulation 3.2 of the Principal Regulations the following regulation shall be substituted:

"3.2 The quantum of obligation is with regard to the energy input in the system of the licensee(s) after adjustment of losses. For subsequent years (from 2023-24 and onwards) the Commission in terms of clause (e) of sub-section (1) of section 86 of the Act, will specify the RPO trajectory through separate order.

8. Regulation 3.3 of the Principal Regulations shall be deleted.

9. For clause (iv) of regulation 3.4 of the Principal Regulations the following clause shall be substituted:

"iv. purchasing renewable and/or cogeneration energy from any generator through open access at a mutually agreed price within the capping price as mentioned in regulation

6.0 or through power exchange at market determined price or from Solar Energy Corporation of India Limited (SECI) at competitively determined price or from other sources where tariff is discovered in accordance with section 63 of the Act;

10. For regulation 3.5 of the Principal Regulations the following regulation shall be substituted:

“3.5 To meet the RPO distribution licensees shall make advertisement in at least two widely published national English daily newspapers and at least one widely published Bengali daily newspaper every year. . Distribution licensees shall also actively participate in the portal made by government for purchase of renewable energy through competitive biddings or endeavour to purchase renewable power through government agencies like SECI where tariff is discovered through competitive bidding in pursuance of section 63 of the Act.
11. For regulation 3.10 of the Principal Regulations the following regulation shall be substituted:

“3.10 The energy drawal by any open access customer in the area of distribution licensee through purchase of such energy from any renewable and/or cogeneration source in excess of its own RPO shall be considered for meeting the RPO of the distribution licensee. The energy generated by the consumer from roof-top solar system under net-metering or net billing arrangement, if such consumer is not an obligated entity under regulation 3.1, shall also be considered for meeting the RPO of the distribution licensee. The renewable and/or cogeneration energy which is being considered as a part of distribution loss during wheeling through the distribution network of any licensee at injection end or drawal end of open access or as intervening network and for which in the wheeling agreement of open access such loss is accounted in kind or price then such amount of energy against distribution loss shall also be considered while calculating the RPO of the distribution licensee.
12. Regulation 3.11 of the Principal Regulations shall be deleted.
13. For regulation 5.3 of the Principal Regulations the following regulation shall be substituted:

“5.3 Notwithstanding anything contained to the contrary in any other regulations, the solar power shall be purchased through competitive bidding only except purchase from solar-PV system of eligible consumers. However, the solar power purchased from any source under JNNSM bundled power or SECI which are selected through competitive bidding, will not be required to go through any separate competitive bidding by the licensee’

14. For paragraph (c) of clause (v) of regulation 6.1 of the Principal Regulations the following paragraph shall be substituted:

“(c) Solar PV Generation System can be installed for injecting into the distribution system of a licensee by any eligible consumer in its premises:

Provided that total installed capacity in such premises does not exceed the sanctioned load (in kW) or contract demand (in kVA) of the consumer, as applicable:

Provided also that eligible consumers under domestic category upto sanctioned load / contract demand of 6 kW and all eligible consumers under agriculture category may set up solar PV system under the Net Metering Arrangement specified in Schedule-1 of these Regulations:

Provided further that eligible consumers, other than domestic category having sanctioned load / contract demand more than 6 KW and agriculture category, may set up the solar PV system only under Net Billing Arrangement specified in Schedule-2 of these Regulations:

Provided further that Net Metering Arrangement or Net Billing Arrangement, as the case may be, shall be permitted by the distribution licensee on a non-discriminatory basis and distribution transformer-wise or feeder-wise ‘first come first serve’ basis to eligible consumers:

Provided further that for the solar-PV generating system, which are already connected with the distribution network under Net-Metering Arrangement shall continue with the existing the accounting and settlement mechanism.

15. For regulation 7.2 of the Principal Regulations the following regulation shall be substituted:

“7.2 Interconnection of solar PV system of eligible consumer:

(a) Solar PV sources of eligible consumers as mentioned in regulation 6.1(v)(c) of these regulations shall generally be allowed connectivity at the same voltage level at which the consumer has been given supply by the distribution licensee or any other voltage of the distribution system of the licensee as considered technically and financially suitable by the licensee.

Provided that, the cumulative capacity of solar-PV generating systems allowed to be interconnected with the distribution network (feeder/distribution transformer) shall not exceed 100% of the feeder and/or distribution transformer capacity, as applicable.

Provided that HT consumer may install and connect its solar PV system at its LT bus bar provided the Net Meter shall be installed on the HT side of the consumer’s transformer.

(b) The distribution licensee shall ensure the interconnection of the solar-PV generating system of eligible consumer with its network conforming to the specifications, standard and other provisions specified in the Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013.

(c) The consumer shall be responsible for safe installation, operation, maintenance and rectification of any defect of the solar-PV generating system up to 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 distribution licensee.

- (d) The distribution licensee shall have the right to disconnect the solar-PV generating system at any time in the event of threat/damage from such renewable energy system to its distribution system to prevent any accident or damage, without any notice. The distribution licensee shall call upon the consumer to rectify the defect within a reasonable time.
- (e) The solar-PV generating system must be capable of detecting an unintended islanding condition. The system must have anti-islanding protection to prevent any feeding into the grid in case of failure of supply or grid. Applicable IEC/IEEE technical standards shall be followed to test islanding prevention measure for grid connected inverters.
- (f) The consumer may install grid interactive renewable energy system with or without battery backup.

Provided that if the consumer prefers setting up of solar-PV generating system with battery backup (full load backup/partial load backup), the inverter shall have appropriate arrangement to automatically prevent the battery power to flow into the grid in the absence of grid supply in addition to manual isolation switch that shall also have to be provided.

- (g) The solar-PV generating system shall be equipped with an automatic synchronization device.

Provided that the solar-PV generating system using inverter shall not be required to have separate synchronizing device if it is inherently built into the inverter.

- (h) The inverter shall have the features of filtering out harmonics and other distortions before injecting the energy into the system of the distribution licensee. The Total Voltage Harmonic Distortion (THD) shall be within the limits specified in the Indian Electricity Grid Code (IEGC)/IEEE technical standards.
- (i) The Net Metering Arrangement shall include a single-phase or a three-phase Net Meter, as per the existing supply arrangement of the eligible consumer, located at the point of inter-connection as would be ascertained by the distribution licensee. The solar-PV generation meter and net meter shall be procured and installed by the distribution licensee against the cost to be borne by the consumer. However, if any consumer wishes to procure the meter(s) with standard specification(s) to be set by the distribution licensee, he may procure and present that/those to the distribution licensee for testing and installation.

Provided that, if the eligible consumer is within the ambit of Time-of-Day ('ToD') Tariff, notwithstanding anything to the contrary contained elsewhere in any other Regulations of the Commission, the Net Meter installed shall be capable of recording ToD consumption and generation.

Provided that, in case of Net Billing arrangement a check meter of appropriate class shall be installed by the distribution licensee for the solar-PV generation meter.

Provided that All meters shall comply with the CEA (Installation and Operation of Meters) Regulations, 2006 and subsequent amendments thereof and the meters shall have Advanced Metering Infrastructure (AMI) facility with RS 485 (or higher) communication port.

Provided further that distribution licensee shall be responsible for the testing, installation, and maintenance of the metering equipment, and its adherence to the applicable standards and specifications.

16. In regulations 8.0, 8.1 and 8.2 the phrase 'unscheduled interchange' shall be substituted with the phrase 'deviation settlement'.

17. After Regulation 16.8 of the Principal Regulations the following regulation shall be inserted:

"16.9 Each distribution licensee shall, within 30 days, prepare a detailed procedure for receiving and disposal of applications for connectivity of the solar-PV generating system of the eligible consumer and submit it before the Commission for approval. The detailed procedure shall specify the standard formats and procedure for application, manner & timeline, model net-metering and net-billing connection agreement for processing the application and granting connectivity. After granting connectivity the eligible consumer has to enter into a Net Billing Connection Agreement or a model Net Metering Connection Agreement with the distribution licensee, as the case may be."

18. After regulation 20.2 of the Principal Regulations the following Schedules are to be inserted:

"Schedule-1: Net Metering – Energy Accounting and Settlement

1. The accounting of electricity exported and imported by the eligible consumer shall become effective from the date of notification of these Regulations or date of connectivity of the solar PV generating system with the distribution network, whichever is later:
2. The distribution licensee shall undertake meter reading of both, the solar PV generation meter and the net meter, for all eligible consumers, according to the regular metering cycle.
3. For each billing period, the distribution licensee shall make the following information available on its bill to the eligible consumer:
 - a) Quantum of solar-PV generation recorded in the generation meter;
 - b) Electricity injected in the grid in the billing period, including opening and closing balance;
 - c) Electricity supplied by the distribution licensee in the billing period, including opening and closing balance;
 - d) Net billed electricity, for which a payment is to be made by the consumer;
 - e) Excess electricity carried forward from the last billing period;
 - f) Excess electricity carried forward to the next billing period.

4. Any excess energy injected from the roof-top solar PV sources being more than 90% of the consumption of energy by that consumer(s) from the licensee's supply in each billing period shall be carried over to the next billing period within that year.
5. Slab tariff, as per applicable tariff order under the Tariff Regulations, shall be applicable for the net energy supplied by the licensee in a billing period if the supplied energy by the licensee is more than the injected energy by the roof-top solar PV sources of the consumer(s) after taking into account the quantum of energy, if any, carried forward from earlier billing period(s) of that year
6. Notwithstanding anything to the contrary contained elsewhere in any other Regulations of the Commission, in case the consumer is within the ambit of time of day tariff, as determined by the Commission from time to time, the following process shall be followed:
 - Electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the same time block;
 - Any excess generation over consumption in any time block in a billing cycle shall be accounted for in a manner, as if the excess generation occurred during the immediately lower tariff time block;
 - This process will continue till all consumption in lower tariff blocks is set off against solar-PV generation.
7. At the end of the year, if the total energy supplied by the licensee to the consumer(s) for that year is found to be less than the energy injected by the roof-top solar PV sources of that consumer(s) for that year, the licensee shall not pay any charge to the consumer(s) for that net energy injected by the consumer(s), in excess of 90% of consumption of that consumer(s) from the licensee's supply in that year and the same shall be treated as unwanted / inadvertent injection.
8. At the beginning of each year, cumulative carried over injected energy will be reset to zero
9. Regardless of availability of excess electricity with the eligible consumer during any billing period, the consumer will continue to pay all other charges such as fixed/demand charges, government levy, etc
10. The distribution licensee shall accept the power as per the useful life of the solar-PV generating system, unless the eligible consumer ceases to be a consumer of the distribution licensee or the solar-PV generating system is abandoned earlier.
11. In case the eligible consumer leaves the system or changes the supply licensee, the excess electricity shall be considered as inadvertent injection by the distribution licensee.

Schedule-2: Net Billing – Energy Accounting and Settlement

1. Net billing is the arrangement where solar-PV generating system is:
 - a) Installed to serve a specific consumer;
 - b) Connected on the distribution licensee side on the consumer meter;

- c) Selling power to a distribution licensee under Power Purchase Agreement;
2. The distribution licensee shall enter into Power Purchase Agreement at a generic tariff to be determined by the Commission.

Provided that the tariff stipulated in the Power Purchase Agreement shall be constant for the entire duration of the agreement.

3. Entire quantum of electricity generated by the solar-PV generating system shall be procured by the distribution licensee.
4. The distribution licensee shall raise bill on the consumer in accordance with the following equation:

Energy Bill of consumer = Fixed Charges + other applicable charges and levies + (EDL x TRST) - (ERE * TPPA) – Billing Credit;

Where:

- a) Fixed Charges means the Fixed/Demand Charges as applicable to the consumer category as per the applicable retail supply Tariff Order;
- b) Other charges and levies mean any other charges such as municipal tax, cess, etc.;
- c) ERE means the energy units recorded for the billing period by the Renewable Energy Generation Meter;
- d) TPPA means the energy charges as per the Power Purchase Agreement signed between the consumer and the distribution licensee, in accordance with paragraph (2) above;
- e) EDL means the energy units supplied (i.e., Gross Electricity Consumption by the consumer) by the distribution licensee as recorded by the consumer meter for the billing period;
- f) TRST means the applicable retail supply tariff of the concerned consumer category as per the applicable retail supply Tariff Order of the Commission;
- g) Billing Credit is the amount by which the value of Renewable Energy generation in a particular month is more than the value of all other components of consumer bill.
5. In case the consumer is subjected to time of day tariffs, energy bill (EDL * TRST) shall be computed accordingly.
6. In case (ERE * TPSA) is more than (Fixed charges + other applicable charges and levies + (EDL * TRST)), utility shall give credit of amount equal to difference (Billing Credit), which shall be carried forward to the next billing cycle within a financial year.
7. At the end of the financial year, if there is any outstanding Billing Credit, it shall not be paid by the distribution licensee.

8. For each billing period, the distribution licensee will make the following information available on its bill to the consumer:
- a) Generation recorded in generation meter;
 - b) Electricity injected by the solar PV plant in the grid in the billing period, including opening and closing balance;
 - c) Electricity supplied by the distribution licensee in the billing period, including opening and closing balance;
 - d) Billing Credit carried forward from the last billing period;
 - e) Billing Credit carried forward to next billing period.

Place: Kolkata

Dated:

By Order of the Commission

T. K. Mukherjee

Secretary to the Commission