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PART I—Orders and Notifications by the Governor of West Bengal, the High Court, Government Treasury, etc.

WEST BENGAL ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

No. 71/WBERC

Kolkata, the 21st December, 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 Regulations").

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. For clause (xxv) of regulation 2.1 of the Principal Regulations the following clause shall be substituted:
- "xxv) 'Renewable Purchase Obligation' or 'RPO' means the obligation of purchase of electricity from renewable energy sources by a distribution licensee in pursuance to section 86 (1) (e) of the Act which is detailed out in regulations 3.1 to 3.4 of these Regulations;"
6. Clauses (xxxvi) and (xxxvii) of regulation 2.1 the Principal Regulations shall be deleted:
7. For Regulations 3.0 and 3.1 of the Principal Regulations the following regulation shall be substituted:

"3.0 Renewable Purchase Obligation (RPO) Target:

- 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 renewable energy sources by (i) the distribution licensees, (ii) a person using power from own captive power plant based on conventional fossil fuel with installed capacity of 1 MW and above and (iii) Open Access Consumer, expressed as percentage of their total consumption of electricity in a year during the years 2020-21 to 2022-23.

Year	Minimum quantum of purchase (in %) of total consumption from Renewable energy sources		
	Solar	Non- Solar	Total
2020-21	3.00	9.00	12.00
2021-22	4.50	10.00	14.50
2022-23	6.00	11.00	17.00

RPO target stipulated above are minimum target(s) to be achieved. Obligated Entity shall endeavour to achieve RPO target notified by the Government of India from time to time:

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

Provided further that distribution licensee shall compulsorily procure 100% power generated from waste to Energy plants located 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 from renewable energy sources 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:

Provided further that notwithstanding anything contained contrary to any other regulations, for Captive Power Plant commissioned before 01.04.2016, RPO shall be at the level of applicable RPO as mandated for 2015-16. For captive power plant commissioned from 01.04.2016 onwards, the RPO level as mandated by the Commission or RPO target set by Government of India whichever is higher for the year of commissioning of captive power plant will be applicable. In case of any augmentation of the capacity, the RPO for augmented capacity shall be the RPO applicable for the year in which the augmented capacity is commissioned:

Provided further that, for open access consumers also drawing power in consumer mode from a licensee, the RPO is restricted to the open access purchase only:

Provided further that for the year 2020-21 the minimum target set in the table above shall be applicable from the date of publication of these amendment regulations on the consumption for the balance period of the year."

8. 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 distribution 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.
9. Regulation 3.3 of the Principal Regulations shall be deleted.
10. In regulations 3.4, 3.7, 3.9 and 3.13 of the Principal Regulations, the phrases "renewable and / or cogeneration", "renewable or cogeneration" and "cogeneration and / or renewable" are to be replaced by the word "renewable".
11. For clause (iv) of regulation 3.4 of the Principal Regulations the following clause shall be substituted:

"(iv) purchasing renewable 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;"
12. After clause (vii) of regulation 3.4 of the Principal Regulations the following clause shall be added:

"(viii) As a last resort to fulfil RPO obligation, distribution licensee may purchase solar and non-solar REC, as the case may be."
13. 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 and upload a copy of such advertisement in their website. 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."
14. For regulation 3.10 of the Principal Regulations the following regulation shall be substituted:

"3.10 The renewable energy drawal by any open access customer or a person using power from own captive power plant based on conventional fossil fuel with installed capacity of 1 MW and above, in the area of distribution licensee 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, in excess of its renewable purchase obligation as per regulation 3.1 of these Regulations, shall

also be considered for meeting the RPO of the distribution licensee. The open access customers and the person using power from own captive power plant based on conventional fossil fuel with installed capacity of 1 MW and above, shall quarterly submit a report containing actual consumption, energy sourced through open access / from captive plant, purchase / sourcing from renewable energy sources and solar & non-solar RPO compliance to the connected distribution licensee. The renewable 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:

Provided that if any renewable energy is registered for renewable energy certificate, that energy shall not qualify for fulfilment of RPO:

Provided further that licensee shall consider the excess renewable purchase / generated by an entity /consumer obligated under regulation 3.1 after completion of the financial year subject to annual RPO fulfilment of the obligated entity/consumer:

Provided further that, renewable energy drawl by a user of renewable based captive power plant shall be considered for meeting the RPO of the distribution licensee in whose area of supply such user is located."

15. Regulations 3.11 and 3.13 of the Principal Regulations shall be deleted.
16. Regulation 4.0 of the Principal Regulations shall be deleted.
17. Regulation 4.1 of the Principal Regulations shall be deleted.
18. After regulation 4.1 of the Principal Regulations the following regulation shall be inserted:

"4.2 Purchase of Power from fossil fuel-based co-generation plants:

Distribution licensee may purchase energy from conventional fossil-fuel based co- generation plant located in the State at a mutually agreed price subject to the ceiling price specified in these Regulations. However, purchase of electricity from fossil fuel-based co-generation plant would not qualify for fulfilment of RPO."

19. 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, distribution licensee shall purchase solar power through competitive bidding only except purchase from grid-connected solar projects below the notified capacity for competitive bidding located within the State. However, the solar power purchased from any source under JNNSM bundled power or SECI which are selected through competitive bidding or from power exchange, will not be required to go through any separate competitive bidding by the licensee:

Provided that purchase of power from grid-connected solar projects below the notified capacity for competitive bidding located within the State shall be within the limit of feed-in-tariff to be notified by the Commission from time to time. Till such notification is made by the Commission tariff for such solar projects will be determined by the Commission on case to case basis."

20. 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 having sanctioned load/ contract demand upto 5 kW may set up solar PV system under the Net Metering Arrangement specified in Schedule-1 of these Regulations and eligible consumers, except agriculture consumers, having sanctioned load/ contract demand above 5 kW may set up the solar PV system only under Net Billing Arrangement specified in Schedule-2 of these Regulations. All eligible agriculture consumers may set up solar PV under Net Metering Arrangement:

Provided further that Net Metering Arrangement or Net Billing Arrangement, as the case may be, shall be permitted by the distribution licensee on a nondiscriminatory 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 accounting and settlement mechanism. However, in case of any roof-top solar capacity addition by existing net-metered consumers, they will be treated freshly for eligibility under net-metering or net-billing as per these Regulations:

Provided further that in case consumers under Net Billing system resorts to unlawful drawal of solar power directly from solar panel before capturing of entire solar generation, then net billing facility will be withdrawn immediately for violation of agreement."

21. 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 and its subsequent amendments thereof.
- (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 as per the provisions specified in the Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2010 and its subsequent amendments thereof.
- (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 Technical Standards for Connectivity of the Distributed Generation Resources (Amendments), 2019 of CEA and its subsequent amendments thereof and Indian Electricity Grid Code (IEGC)/ IEEE technical standards:

Provided that, if the presence of harmonics is beyond the limits specified mentioned above it may be treated as "the event of threat/damage" under regulation 7.2 (d) of these Regulations, and the utility shall have the right to disconnect the solar PV generating system.

- (i) The consumers who have installed grid-connected roof-top solar generator under net-metering / net-billing arrangement shall have to furnish certificate of fitness conforming to correct operation of islanding, generation of harmonics and other Power Quality parameters as per limits mentioned above. Consumer can arrange such testing by their own in presence of representative of distribution licensee or request the connected distribution licensee for arranging such tests on cost basis. The periodicity and the procedure for such testing will be specified in the detailed procedure developed by the licensee under regulation 16.9 of these Regulations. The cost for such testing will be uploaded in the website of the distribution licensee.
- (j) 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 generation 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 against the cost to be borne by the consumer:

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.

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

23. 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 application fees, standard formats and procedure, manner & timeline for processing the application and granting connectivity, manner and process for applying for certificate of fitness, 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 Net Metering Connection Agreement with the distribution licensee, as the case may be."

24. 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 to be 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 generic tariff of the projects commissioned during a specified year shall be fixed for the entire useful life of the project.
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, subsidy, rebates and levies + (EDL x TRST) - (ERE x TPPA) - Billing Credit;
Where:
- Fixed Charges means the Fixed/Demand Charges as applicable to the consumer category as per the applicable retail supply Tariff Order;
 - Other charges and levies mean any other charges such as municipal tax, cess, etc.;
 - ERE means the energy units recorded for the billing period by the Renewable Energy Generation Meter;
 - 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;
 - 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;
 - TRST means the applicable retail supply tariff of the concerned consumer category as per the applicable retail supply Tariff Order of the Commission;
 - 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 x TRST) shall be computed accordingly.
6. In case (ERE x TPPA) is more than (Fixed charges + other applicable charges, subsidy, rebates and levies + (EDL x 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:
- Generation recorded in generation meter;
 - Electricity injected by the solar PV plant in the grid in the billing period, including opening and closing balance;
 - Electricity supplied by the distribution licensee in the billing period, including opening and closing balance;
 - Billing Credit carried forward from the last billing period;
 - Billing Credit carried forward to next billing period.

By order of the Commission,

Place: Kolkata

Date: 21.12.2020

T. K. MUKHERJEE
Secretary of the Commission