

Net Metering Connection Agreement

Between

CESC Limited

And

.....

in respect of a Solar PV Generating System installed on a roof  
top/mounting structure (omit non-applicable one) at premises no.

.....

Month, Year



This Net Metering Connection Agreement (hereinafter for the sake of brevity referred to as the “**Agreement**”) is entered at Kolkata on this ..... day of ....., 20.... by and between:

**CESC Limited**, a Company within the meaning of the Companies Act, 2013, having its Registered Office at CESC House, Chowringhee Square, Kolkata – 700001 (hereinafter for the sake of brevity referred to as “CESC”, which expression, unless excluded by or repugnant to the context or meaning thereof, shall be deemed to include its successors and assigns), of the FIRST PART.

AND

....., residing / carrying on business at....., a Consumer of CESC and the owner of the Solar PV generating system (hereinafter for the sake of brevity referred to as the “**Eligible Consumer**”, which expression unless excluded by or repugnant to the context or meaning thereof, shall be deemed to include his/her/its successors and assigns) of the SECOND PART.



**WHEREAS,**

- a) CESC is a Distribution Licensee engaged in the supply and distribution of electricity to its consumers within its licensed area;
- b) The Eligible Consumer is an existing LV Consumer of CESC having Consumer No./Customer Id No. ....;
- c) The Eligible Consumer has installed /proposes to install a Solar PV Generating System with net meter (hereinafter for the sake of brevity referred to as the “**Solar Plant**”) on the rooftop/mounting structure (omit non-applicable one) of its premises at.....;
- d) The Eligible Consumer owns the Solar Plant and confirms that it has not entered into agreement / arrangement with any third-party for installation of the Solar PV Generating System at the cost of such third party or for receiving supply of electrical energy from the Solar Plant owned by such third party;
- e) The Eligible Consumer intends to interconnect the above Solar Plant with the electrical installation/ network available within the premises of the Eligible Consumer and run in parallel with CESC’s Distribution System so that the Solar Plant is able to inject surplus electrical energy generated by it into CESC’s network. Accordingly, the Eligible Consumer has applied to CESC for such interconnection and net metering facility;
- f) In the premises, CESC has agreed to allow interconnection and parallel operation of the Solar Plant with CESC’s Distribution System in accordance with the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2013 as amended by the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) (First Amendment) Regulations, 2020 (hereinafter for the sake of brevity collectively referred to as the “**Renewable Regulations**”) on the terms and conditions as agreed hereto between the Parties in this Agreement;
- g) The Solar Plant meets the applicable conditions for being integrated into the distribution network of CESC Limited in accordance with the detailed procedure for effecting connectivity of the solar PV generating system of Eligible Consumers as approved by the West Bengal Electricity Regulatory Commission, and that the Eligible Consumer shall maintain the system accordingly for the duration of this Agreement.

NOW, THEREFORE, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS UNDER:



- 1(i) This Agreement shall take effect from the date of connectivity of the Solar Plant with the distribution network of CESC. This Agreement will get terminated under the following cases:
- a). Eligible Consumer ceases to qualify contract demand / sanctioned load criteria in terms of the Renewable Regulations; or
  - b). The Eligible Consumer becomes eligible for Net Billing in terms of the Renewable Regulations; or
  - c). The Eligible Consumer ceases to be a consumer of CESC; or
  - d). The Solar Plant is abandoned earlier to expiry of its projected life cycle; or
  - e). This agreement is terminated by mutual consent at any point of time; or
  - f). This agreement is terminated by other clauses (clause 5, 6, 15, 17, 19 and 23 (b)) of this agreement.
- (ii) The Eligible Consumer shall forthwith de-synchronize the solar plant from the network of CESC upon termination of this Agreement.
2. The Eligible Consumer shall be responsible for the safe installation, operation, maintenance of the Solar Plant and rectification of any defect therein during the currency of this agreement. The Eligible Consumer shall obtain and maintain all required statutory approvals / authorizations / clearances / certificates from appropriate authorities before synchronizing the solar plant with the distribution network and as may be applicable from time to time. The Eligible Consumer is required to submit a copy of Manufacturers Test Certificates for all components for having complied with relevant BIS/IEC standards of the selected model along with work completion report;
  3. Both the Parties shall abide by all the applicable statutory provisions including the Renewable Regulations, the Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013; Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010 , Central Electricity Authority (Installation and Operation of Meter) Regulation, 2006 and any other relevant statutory provisions or Acts or regulations with regard to safety of operation, testing and installation of the Solar Plant. The Eligible Consumer shall comply with all directions of CESC relating to safety, security and reliable operation of CESC's Distribution System;
  4. The Eligible Consumer shall comply with the requirements for installation and operation of the Solar Plant as stipulated in the relevant standards of Bureau of Indian Standard (BIS). If BIS Standards are not available for a particular material / subject, International Electro-Technical Commission (IEC) Standards, or IEEE/IEGC technical standards or any other relevant Standard shall be followed by the Eligible Consumer;



5. All equipment including the Solar Plant belonging to the Eligible Consumer and synchronized with the Distribution System of CESC shall be of suitable design conforming to the relevant technical standards and shall be maintained to the reasonable satisfaction of CESC. The setting of fuses and relays on the Eligible Consumer's control gear as well as rupturing capacity of any of its circuit breakers shall be subject to CESC's satisfaction. In case any defect in any part of the Eligible Consumer's installation is detected either by the Eligible Consumer or by CESC, the Eligible Consumer shall, on its own or at the request of CESC, forthwith isolate / disconnect the faulty part of the installation from the Distribution System of CESC, failing which CESC shall have the right to disconnect the Solar Plant from its network and terminate these presents with immediate effect. CESC shall not be responsible in respect of the Eligible Consumer's installation or any apparatus of the Eligible Consumer. The system should be provided with all necessary protections like Earthing, Lightning and Surge Protection;
6. CESC shall be entitled to isolate the Solar Plant from its Distribution System at any time in the event of any threat/damage from such Solar Plant to its Distribution System to prevent any accident or damage, without any notice and terminate these presents with immediate effect. CESC shall not be responsible for any accident resulting in injury to human beings or animals or damage to property that may occur due to back-feeding from the Solar Plant when the grid supply is off. The Solar Plant should also have an arrangement to isolate itself immediately upon occurrence of any abnormal condition, internal or external, without any damage through suitable protective gears and CESC shall not be held responsible for any loss or damage, if any arising out of isolation failure;
7. The Eligible Consumer agrees that in case of a power outage on CESC's system, the Solar Plant will be disconnected / isolated automatically and the Solar Plant will not inject power into CESC's Distribution System. The Solar Plant installed by the eligible consumer must be capable of detecting an unintended islanding condition and be equipped with anti-islanding protection system to prevent any feeding into the grid in case of failure of supply or grid. In emergency or outage situation, where there is no access to the disconnecting means, either manually or electronically, such as switch or breaker, CESC may disconnect service to the premises of the Eligible Consumer;
8. The Eligible Consumer shall provide the certification that the Solar Plant has been installed in compliance with IEEE – 929, IEC Standard, IEGC standard or any other relevant standard relating to the recommended practice for interconnection and standards of safety. The consumer by submitting the certificate of fitness shall also confirm the correct operation of islanding and ensure that generation of harmonics and other Power Quality parameters are within the limits as per relevant standards. Information related to specifications applicable to meters and interconnection standard is given in **Annexure-A**



9. The Solar Plant shall be equipped with an automatic synchronization device unless it uses an inverter in which automatic synchronization is an inherent feature. In case the consumer installs Solar Plant with battery backup, it is required that the inverter should have appropriate arrangement to automatically prevent the battery power to flow into the grid;
10. The Eligible Consumer shall not commence parallel operation of the Solar Plant without prior written approval of CESC and the total installed capacity of the Solar Plant shall not exceed the contract demand (in kVA)/ the sanctioned load (in kW) of the Eligible Consumer subject to fulfillment of conditions mentioned in clause 1. (i) a);
11. The Eligible Consumer shall provide suitable space for installing meters to record solar PV generation and net metering purpose as may be required for the connectivity and measuring solar generation as decided by CESC in terms of the applicable regulations. Net metering shall be done at the point of commencement of supply with reference to Eligible Consumer's Consumer No. /Customer Id No. The Consumer shall henceforth avail net metering facility. CESC will raise electricity bill(s) on the Eligible Consumer in accordance with the Renewable Regulations read with the applicable tariff order passed by the West Bengal Electricity Regulatory Commission;
12. The Eligible Consumer shall bear the cost of the required number of Meters as applicable. In case of any changes required at the premises of proposed site due to the proposed installation, the requisite changes, if any, shall be carried out by the Eligible Consumer at their own cost;
13. (The name of the Eligible Consumer) having Consumer No/Customer Id No.....shall continue to be the Consumer of CESC and all terms and conditions of the Supply Agreement entered/subsisting with CESC and its subsequent renewal / amendment thereof shall continue to be in force;
14. Monthly meter readings shall be taken by CESC. For each billing period, CESC shall provide such details as mandated by the Renewable Regulations to reflect the amount including the Fixed / Demand Charge etc. payable by the Eligible Consumer within the due date as indicated in the bill. Adherence to schedule of payment will be subject to applicable rebate / surcharge as per the order(s) / regulations of the West Bengal Electricity Regulatory Commission. Further, applicable charges, in terms of the regulations/ orders of the West Bengal Electricity Regulatory Commission shall become applicable in case less than 51% of the aggregate electricity generated in the SPGS, determined on an annual basis is consumed by the Eligible Consumer;
15. Subject to clauses 5 and 6 hereof, in the event of default in payment of bill(s) and / or default in complying with any of the terms of this Agreement, CESC shall serve 15 (fifteen) days' notice upon the Eligible Consumer to rectify the defect(s) / defaults(s) and in case of defect(s) / defaults(s) continuing thereafter,



- this Agreement may be terminated by CESC with immediate effect without serving further notice;
16. The Eligible Consumer shall furnish data as required by CESC from time to time. CESC reserve the rights to examine the correctness of the data as furnished by the Eligible Consumer including visiting the location of the Solar Plant;
  17. The Eligible Consumer shall not indulge in unauthorized use of electricity or permit or allow electricity to be used beyond the limits of the said premises or carry out any unauthorized alteration / extension / reconnection. The Eligible Consumer shall allow CESC unhindered access to the Solar PV Generating System locations and metering points to carry out requisite inspections / checks at the consumer premises. In case the Eligible Consumer indulges in unauthorized use of electricity, CESC shall forthwith initiate proceedings in terms of the West Bengal Electricity Regulatory Commission (Electricity Supply Code) Regulations, 2013, other applicable regulations / order (s) as applicable from time to time. In the event the Eligible Consumer fails to comply with the provisions of the applicable Act / Regulations / Codes / Rules, the supply is liable to be disconnected upon serving 15 (fifteen) days' notice which shall ipso facto entail termination of these presents without prejudice to any other rights or action that CESC would be entitled to;
  18. The Eligible Consumer shall be responsible for and will make good to CESC any damage or harm caused to the electric lines and / or apparatus of CESC due to accident occurring from the operation of the Solar Plant or negligence on the part of the Eligible Consumer in maintaining safe operation of the Solar Plant;
  19. This Agreement shall stand automatically terminated in case the Eligible Consumer fails to qualify for energy adjustment under the Renewable Regulations;
  20. The Eligible Consumer shall indemnify and hold CESC safe and harmless from all losses, damages, claims, costs and other outgoings to CESC on account of any act of omission or commission on the part of the Eligible Consumer or otherwise for reasons attributable to them in the course of parallel operation of the Solar Plant;
  21. CESC shall not be liable for disbursement or realization by Eligible Consumer for any fiscal or other incentive provided by the Central/State Government beyond the scope as may be specified by the West Bengal Electricity Regulatory Commission in its Order.
  22. a) Any dispute arising under this Agreement shall be resolved, in good faith and in an equitable manner by both the parties; or  
b) The Eligible Consumer shall have recourse to the GRO functioning under the WBERC (Guidelines for Establishment of Forum for Redressal of Grievances of Consumers and Time and Manner of Dealing with such Grievances by the Ombudsman) Regulations, 2013;



23. Any change in law, rules, regulations or issuance of order(s) by Appropriate Government or Appropriate Commission, which may affect the terms and conditions of this Agreement will not automatically terminate this Agreement. The Parties shall mutually discuss the implications and decide as under:

- (a) If the Parties agree that the changes can be applied mutatis mutandis to this Agreement, then such changes may be effected through amendments to the agreement or through a fresh agreement; or,
- (b) If the Parties agree that the changes will be detrimental to the interest of either Party, then this Agreement will be terminated from the date of effectiveness of such changes.

IN WITNESS WHEREOF these presents have been entered into the day, month and year first above written.

SIGNED, SEALED AND DELIVERED for and on behalf of

CESC Limited by its Constituted Attorney/ Authorized Representative:

Occupation :

Address :

In presence of:

- 1)
- 2)

SIGNED, SEALED AND DELIVERED

for and on behalf of (Eligible Consumer),

by its Authorized Signatory:

Occupation :

Address :

In presence of :

- 1)
- 2)



**Annexure-A**

**Following specifications shall be applicable for the activities related to meters and grid interconnection.**

**Standards and Limits**

<b>PARAMETER</b>	<b>REFERENCE</b>	<b>REQUIREMENT</b>
<b>Service conditions</b>	Relevant regulation/order by West Bengal Electricity Regulatory Commission	Compliance
<b>Overall Grid Standards</b>	Central Electricity Authority (Grid Standards) Regulations, 2010	Compliance
<b>Equipment</b>	BIS / IEEE / IEC	Compliance
<b>Meters</b>	Central Electricity Authority (Installation and Operation of Meters) Regulations 2006 read with amendments & relevant regulations by West Bengal Electricity Regulatory Commission	Compliance
<b>Synchronization</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	Photovoltaic system must be equipped with a grid frequency synchronization device. Every time the generating station is synchronized to the electricity system, it shall not cause voltage fluctuation greater than +/- 5% at point of connection.
<b>Voltage</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	The voltage-operating window should minimize nuisance tripping and should be under operating range of 80% to 110% of the nominal connected voltage. Beyond a clearing time of 2 second, the photovoltaic system must isolate itself from the grid.
<b>Frequency</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	When the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5 Hz on lower side), there should be over and under frequency trip functions with a clearing time of 0.2 seconds



<b>PARAMETER</b>	<b>REFERENCE</b>	<b>REQUIREMENT</b>
<b>Flicker</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	Operation of Photovoltaic system should not cause voltage flicker in excess of the limits stated in IEC 61000 standards or other equivalent Indian standards, if any.
<b>Harmonic Current</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	Harmonic current injections from a generating station shall not exceed the limits specified in IEEE 519
<b>Safety and Supply</b>	Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2010	Compliance
<b>Islanding and Disconnection</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	The photovoltaic system in the event of fault, voltage or frequency variations must island / disconnect itself within IEC standard on stipulated period
<b>Power Factor</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	While the output of the inverter is greater than 50%, a lagging power factor of greater than 0.9 should operate
<b>DC injection</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	Photovoltaic system should not inject DC power more than 0.5% of full rated output at the interconnection point under any operating conditions
<b>Overload and overheat</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	The inverter should have the facility to automatically switch off in case of overload or overheating and should restart when normal conditions are restored
<b>Paralleling Device</b>	IEEE 519 and Central Electricity Authority (Technical Standards for Connectivity below 33 kilovolts) Regulations, 2013	Paralleling device of photovoltaic system shall be capable of withstanding 220% of the normal voltage at the interconnection point.

Applicants are also required to follow the below mentioned compliances.

1. The manufacturer of Solar PV Modules & Inverter as per latest MNRE ALMM list will be preferred and also system installer of grid-connect PV systems empaneled by MNRE



(Ministry of New and Renewable Energy, Government of India) of your choice to install the Solar PV Generating Systems (SPGS).

2. Mandatory safety features which have to be installed as part of RTS system are:
  - a. Certified Inverter controlled relays which can trip on grid failure and thus prevent any solar power injection to Grid when there is no grid power.
  - b. The RTS system should be separately grounded / earthed.
  - c. Additional switchgear/relay (sensing phase-angle shift) is required as a second rung of safety. It shall be positioned between interconnection point and the bi-directional net meter.
  - d. Harmonics suppression/filtering feature in the inverter for local network's safety and for accurate measurement of energy.
  - e. Lightning Arrestor must be provided.
  - f. Manual isolator switch at an easily accessible location with locking facility shall be provided.

