

No. 8988/ED/EE-MRT & MMC/JE/F-5/2023-24
GOVERNMENT OF PUDUCHERRY
ELECTRICITY DEPARTMENT

Puducherry, 30/01/2024

Sub: Electricity Department, Puducherry – EE-MRT & MMC – Revised Guidelines for providing Grid connectivity to Ground Mounted and Rooftop Solar Power Plants under JERC - Net Metering Regulations, 2019 – Reg.

Ref: 1. No.3044/ED/SE/HOD/EE-MRT&MMC/F-RT-Solar/2017-18 dt. 23/02/2018.
2. No. 8988/ED/EE-MRT & MMC/JE/F-5/2023-24 dated 13/10/2023

It is informed that the Government of India has fixed a target for RTS saturation in ~~Commercial and~~ residential buildings in the UT of Puducherry by the year 2026. To accelerate the process of effecting Grid connectivity to the Solar installations, this Department has revised the Guidelines communicated earlier vide reference 2nd cited for strict compliance with immediate effect.

Further, the required formats have been formulated for uniform adoption by the Field Officers and Consumers. The Executive Engineers are requested to direct the Sub-Divisional Engineers / Section Officers to strictly adhere to the provisions of the revised Guidelines and the timelines given therein.

Encl. : One copy of Guidelines

o/c Superintending Engineer - cum - HoD
15/15

To

1. The Executive Engineer – Urban/C & TTC/SPM & Bldgs./Rural North/Rural South/General, Electricity Department, Puducherry
2. The Executive Engineer – Karaikal, Electricity Department, Karaikal
3. The Assistant Engineer, Mahe / Yanam, Electricity Department, Mahe/Yanam
4. The Assistant Engineer – Computer, E.D.P – to upload the Guidelines in the Dept.'s website.
5. The Assistant Engineer/ LTM – to arrange to test the meter received directly from consumer /solar vendor within 1 working day.

Copy to

The Superintending Engineer – O & M-PR/MP & ORs, Electricity Department, Puducherry

Revised Guidelines for Setting up of Grid Connected Solar Power Generation System

To promote generation and use of Solar Energy, the Joint Electricity Regulatory Commission for the State of Goa and Union Territories has notified the “Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Solar PV Grid Interactive System based on Net Metering) Regulations, 2019” (hereinafter referred to as “Net Metering Regulations, 2019”) repealing earlier Regulations issued during 2015. For effective and proper implementation of the Net Metering Regulations, 2019, the Electricity Department, Puducherry has formulated the following procedural guidelines for adoption to Grid Connected - Rooftop mounted, ground mounted and floating Solar Power Projects.

1.0 Eligibility Criteria

1.1 Self owned Project

Solar Plant Projects of various capacities shall be established within the premises of the consumer at Rooftop of a house/factory/Ware house/Government building/Panchayat Bhavan/ Community Centre/School/dispensary/hospital/parking place/Bus Stand/Group Housing Society/Market Society/market roof top/Canals/Water Reservoir/any such place/or vacant space and elevated area on the land, building or the Infrastructure or part or combination thereof, or the area taken on rent or on lease, or the area for the common facility in the premises of any multi-storeyed building, Group Housing Society/Residential Welfare Association/Market Welfare Association/ Industrial Welfare Group and in respect of which a separate meter or metering arrangements have been made by the Licensee for supply of electricity, based on the technologies approved by MNRE for connecting the project with the Grid.

Capacity for Net metering: Solar Projects of various capacities upto 500 KWp may be established at one premises of the consumer under Net Metering System.

Capacity for Group Net Metering or Virtual Net Metering: The capacity of the Solar Plant to be installed under Group Net Metering or Virtual Net Metering framework shall not be less than 5 KWp and more than 500 KWp.

The Solar Plant of rating higher than 500 KWp shall be considered by the Distribution Licensee provided that the distribution system remains stable after the higher rating Solar Plant is connected to the grid. The Solar plants with capacity more than 500 KWp shall obtain Safety Certificate from the Electrical Inspectorate associated with the Distribution Licensee.

The Eligible Consumer may install the Solar Plant, provided the Solar Plant is:

- (i) Within the permissible rated capacity not exceeding the Contract Demand (in KVA) or Sanctioned Load (in KW).
- (ii) Located at the Consumer's Premises in respect of Net Metering
- (iii) Located at any other premises also for Group Net Metering and Virtual Net Metering
- (iv) Interconnected and operated safely in parallel with the Distribution Licensee's network.

1.2 Third Party Owned Project

In the third party owned Solar Plant Project, the following conditions shall apply:

- (i) The Consumer may lease out / rent the Rooftop Space/ Land/ Water bodies to a Solar Project Developer on a mutual commercial arrangement for setting up of Solar Project under the Net Metering framework. The Consumer shall pay the Solar Project Developer for all the energy generated by the Solar Project at a mutually agreed tariff. The commercial arrangement between the Project Developer and the Prosumer shall be submitted to the Distribution Licensee for records and the Distribution Licensee shall not have any role in such commercial arrangement.
- (ii) All the provisions of Net Metering framework shall be applicable for Solar Project set up by a Solar Project Developer.
- (iii) Such Solar Projects set up under these Regulations shall be exempted from Open Access restrictions and associated charges including losses.

- (iv) The Distribution Licensee/ Nodal Agency may explore other business models that may facilitate the proliferation of Grid connected Rooftop solar projects. For any new business model not envisaged in these Regulations, the Commission will approve the framework for such business model based on the specific Petition to be filed in this regard.

1.3 Capacity of the Solar Project:

The amount of solar power capacity penetrated into the distribution transformer/ feeder is limited to **75%** of the rated capacity of the respective distribution transformer from where the normal feeding is provided/ *Transformation capacity of the HT consumer/ feeder to which the consumer is connected*. The grid connectivity shall be provided to the eligible consumers on first cum first serve basis.

2.0 Application, Registration, Installation, Grid Connectivity

The procedure for connectivity of solar PV System under Net Metering Regulations 2019 involves the following process:-

2.1 Application

The Eligible Consumer shall apply to the concerned Distribution Licensee for connectivity of the Solar Plant Project with the Licensee's distribution network specifying the type of connectivity arrangement required viz., Net-Metering/Group Net Metering/Virtual Net Metering to the respective jurisdictional Sub-Division Engineer (Operation and Maintenance) (hereinafter referred to as Sub-Divisional Engineer), Executive Engineer/ Superintending Engineer, Electricity Department, Puducherry/ Karaikal/ Mahe/ Yanam regions depending on the capacity proposed to be installed and on the same day, the jurisdictional Engineer shall acknowledge receipt of such application with date and Serial number of receipt of application which shall form the basis, for further processing of applications on first cum first serve basis.

The model Application Form, along with a checklist, for application to be made by the Eligible Consumer to the concerned Licensee is as per **Annexure 1**.

For solar applications received through National portal no separate acknowledgement is required to be issued.

2.2 Feasibility Report:

For installations upto 3 KWp, the Sub-Divisional Engineer shall issue feasibility approval without inspection.

Beyond 3KWp, the jurisdictional Junior Engineer shall check the technical feasibility for extending grid connectivity by assessing the following:-

- (i) AC Voltage level at which connectivity is sought;
- (ii) Sanctioned Load/Contract Demand of the Applicant;
- (iii) Rated Output AC Voltage of the proposed Solar Project;
- (iv) Available cumulative capacity of relevant Distribution Transformer;
- (v) Available cumulative capacity of relevant HT feeder

along with safety requirements and shall submit a feasibility report in the format as per **Annexure 2** either for full installed capacity/ reduced capacity or rejection with reasons as the case may be to the jurisdictional Sub-Divisional Engineer, Electricity Department, Puducherry, within three (3) days from the date of receipt of the application.

On receipt of report from the jurisdictional Junior Engineer, the Sub-Divisional Engineer shall within three (3) days issue Installation approval (Feasibility approval)/ seek approval from the Executive Engineer; Superintending Engineer as the case may be. The Executive Engineer & the Superintending Engineer shall issue Installation approval within 3rd & 6th day of receipt of report from the Sub-divisional Engineer respectively.

2.3 Letter of Approval:

Powers of the Engineers for issue of Feasibility Approval (Installation) and the Grid Connectivity in the UT of Puducherry are as tabulated below:-

Sl. No.	Type of Service Connection	Installed capacity of the PV Plant	Sanctioning Authority
1	Low Tension	0 to 20 KWp	Assistant Engineer/ Assistant Executive Engineer
2	Low Tension	>20 to 97 KWp	Executive Engineer
3	High Tension/ Extra High-Tension	All capacities	Superintending Engineer

The approval shall indicate the maximum permissible capacity of the Solar Plant, and shall be valid for a period of 120 days from the date of approval, or such extended period as may be agreed to by the Electricity Department, Puducherry.

Before rejecting any application for setting up a Solar Plant Project at a particular Distribution Transformer, the Assistant Engineer shall serve the Applicant with a notice to rectify the deficiencies, within 15 days or such longer period as may be necessary.

Provided that in case approval cannot be granted due to inadequate Distribution Transformer capacity, the application may be considered, in chronological order of date of seniority and if the Consumer opts, after the Distribution Transformer capacity becomes available.

2.4 Work completion, Submission of PCR & Net metering Agreement

The Consumer/ Solar power Developer shall set up the plant and submit the work completion report as per **Annexure-3** along with relevant details (such as technical specifications, test reports received from the manufacturer / system provider / Safety Certificate from the Chief Electrical Inspectorate if required etc.) and layout drawings, within the valid period mentioned in the installation approval from the date of issue of Installation approval to the Sub-Divisional Engineer/ Executive Engineer/ Superintending Engineer as the case may be. On completion of installation of Solar PV Plants, the consumer shall furnish a letter of request to the Distribution Licensee for testing and commissioning of the Solar Plant along with proof of payment of one-time, non-refundable registration fee for Rs. 500/- (Rupees Five Hundred only) + %GST extra, manually or by electronic means and the Net Metering Agreement to be executed between the Consumer and Distribution Licensee as per the prescribed format (2 Sets) in **Annexure-4** (in stamp paper of value not less than Rs. 20.00) duly signed by the consumer.

The consumer shall arrange to fix a unidirectional energy meter of adequate capacity on the generation side before the interconnection point, for the purpose of recording the Solar Power generated.

2.5 Plant inspection Report:

The Sub-Divisional Engineer along with the jurisdictional Junior Engineer, shall complete the testing and commissioning of the Solar PV Plant within three (3) working days from receipt of such request, in the presence of the applicant or his authorized person or his designated electrical contractor possessing valid license, as per the provisions of the following Regulations with latest amendments and issue findings report to the consumer for compliance if any.

- CEA (Measures relating to Safety and Electric Supply), Regulations, 2010
- CEA (Technical Standards for Connectivity of Distributed Generation Resources) Regulations, 2013 with Amendment Regulations 2019
- CEA (Technical standards for connectivity to the Grid) Regulations, 2017
- CEA (Installations and operations of Meters) Regulations, 2006 and amendment Regulations 2010.
- JERC Net Metering Regulations 2019
- JERC (Supply Code) Regulations 2018
- JERC (State Grid code) Regulations 2010

2.6 Approval for Grid connectivity:

The Sub-Divisional Engineer on receipt of work completion report from the consumer and report from the jurisdictional Junior Engineer (without deficiencies in the installed Solar PV plant) shall prepare a comprehensive report and approve the Grid Connectivity/seek approval of the Executive Engineer / Superintending Engineer as the case may be within three (3) days thereafter. The report shall contain the details such as intervening Sub-Station, feeder with voltage level and the distribution transformer with capacity, work completion report, test reports etc.

The Executive Engineer / Superintending Engineer shall issue Grid connectivity approval to the Sub-Divisional Engineer within 10 (4 & 6) working days after receipt of comprehensive report respectively.

2.7 Testing, Fixing of Bidirectional meter and Grid connectivity:

In the mean time, the consumer/ vendor shall arrange to purchase a bidirectional energy meter (Net Meter), as per the Department specification and submit the meter directly to the LT/ HTM sub-division, requesting to test the meter, enclosing a copy of the Installation approval & PCR submitted to the Sub-division Office/ uploaded in the National Portal. The Assistant Engineer-HTM/ LTM shall test & seal the meter within one (1) day and handover to the consumer/ Vendor along with the report. Tested meter shall be handed over to the Jurisdictional Junior Engineer/ Assistant Engineer by the Consumer/ Vendor.

The tested bi-directional energy meter shall be fixed and sealed at the consumer premises within one (1) day after issue of Grid connectivity approval and the plant shall be treated as commissioned from that day onwards.

The above Net Metering Agreement submitted by the consumer shall be sent to the Nodal Officer (Executive Engineer – MRT & MMC) for obtaining the signature of the SE cum HOD.

3.0 Connectivity – Safety Compliance Requirement

- (i) The interconnection point shall be at the location, where the point of electrical service connection exists.
- (ii) The automatic isolation or islanding protection of Solar Plant should be ensured within the required response time, in case of no grid supply, low or over voltage conditions etc. Adequate rated fuses and fast acting circuit breakers on input and output side of the inverters and disconnect/isolating switches to isolate DC and AC system for maintenance shall be provided. The consumer should provide all internal safety and protective mechanisms for earthing, surge, DC ground fault, transients etc.
- (iii) To prevent back feeding and possible accidents when maintenance works are carried out by authorized personnel of the Distribution Licensee, Double pole/Triple pole with neutral isolating or Four pole disconnect switches which can be locked by Distribution Licensee personnel should be provided. Responsibility of handling / maintaining such disconnect switches will be the responsibility of the Owner of the premises in whose premises this Switch is installed. This disconnecting switch is in addition to the automatic sensing and isolating device on grid supply failure and in addition to any other internal disconnect switches provided or needed to be provided keeping in view the safety of humans and animals. In the event of LT/HT supply failure from the end of the Distribution Licensee, the consumer has to ensure that there will not be any Solar energy being fed into the LT/HT grid of Distribution Licensee. The Prosumer/Producer is solely responsible for any accident to human beings / animals whatsoever (fatal /non-fatal /departmental /non-departmental) that may occur due to back feeding from the Solar Plant when the grid supply is off. Distribution Licensee reserves the right to disconnect the installation at any time in the event of the solar power plant damaging the Department grid or meter etc. or to prevent any accident or damage.
- (iv) The Solar Power Generator (SPG) may establish grid interactive solar power plant in the Rooftop or elevated surface with the following options:-
 - a) Grid interactive Solar Plant without battery.
 - b) Grid interactive Solar Plant with battery backup.

However, in both the options, features as per the Net Metering Regulations, 2019 shall be made available so as to ensure islanding of the Solar Plant and to prevent back feeding to Grid system of the Distribution Licensee. In case of Grid interactive solar plant with battery backup, an automatic isolating switch shall be provided at appropriate location to make islanding of the consumer load from the Grid in the event of grid failure.

- (v) The inverter standards shall be as per the relevant Regulations and it should not allow Solar Power /battery power to extend to Distribution Licensee's grid on failure of grid supply, irrespective of the connectivity options. The Consumer shall utilize the same service line for excess power injection into the Grid which is currently being used by the consumer for drawl of power from the Distribution licensee's grid and shall operate in synchronization with the grid system. The technical standard requirements of the solar plant are given in **Annexure-5**.
- (vi) On installation of the Solar PV System, the bi-directional energy meter procured and provided by the prosumer shall be tested and installed by the licensee as per CEA (Installations and operations of Meters) Regulations, 2006 and amendment Regulations 2010.

4.0 Billing, Energy Accounting and Settlement

- (i) The accounting of electricity exported from the Solar Plant and imported from the Grid by the Eligible Consumer shall become effective from the date of connectivity of the Solar PV Plant with the distribution network.

- (ii) **Issue of CC bills:**

The Junior Engineer /O&M, shall arrange to take the reading of units generated from the Generation Meter(s) and Import & Export reading from the Bi-directional meter, in all the grid connected solar PV Power Plants within their jurisdiction and issue spot generated CC bills on the date of issue of CC bills to the other non-solar consumers in their Cycle route through TAB ENTRY. Reading of the Generation meter(s) shall be collected from the computer Centre and furnished to the Executive Engineer- MRT & MMC before 5th day of the succeeding month.

In the O&M areas where the Tab Entry Facility is not available, the following procedure shall be adopted until TAB facility is extended: -

- a) The Junior Engineer/ O&M shall arrange to take Import & Export reading from the Bi-directional meter, from all the grid connected solar PV Power Plants within their jurisdiction and send to their respective Junior Accounts Officer (Revenue) before the 5th day of the succeeding month.

The Junior Accounts Officer shall prepare the CC bills manually and send to the respective Junior Engineer/ O&M before 7th day of the succeeding month.

The Junior Engineer/ O&M shall arrange to issue all the above manual bills to the respective consumer before 10th day of the succeeding month.

- b) The Junior Engineer/ O&M shall arrange to take the reading of units generated from the Generation Meter(s) and send to the Executive Engineer - MRT & MMC before 5th day of the succeeding month

- (iii) **Billing & Accounting:**

The Junior Accounts Officer (Revenue)/ Senior Accounts Officer (HT) shall prepare the solar CC bill as per the following procedure:-

- a) If the quantum of electricity exported exceeds the quantum imported during the billing period, the excess quantum shall be carried forward to the next billing period as credited units of electricity;
- b) If the quantum of electricity Units imported by the Eligible Consumer during any billing period exceeds the quantum exported, the Junior Accounts Officer (Revenue) / Senior Accounts Officer (HT) shall raise the invoice/ bill for the net electricity consumption

after adjusting the credited units in the earlier billing periods of the same Financial Year.

- c) The unadjusted net credited Units of electricity available at the end of each financial year shall be considered as units purchased by Electricity Department, Puducherry at the Average Power Purchase cost *or Feed-in-Tariff* determined for that year without considering subsidy and Accelerated Depreciation, whichever is lower.

Provided that, at the beginning of each Settlement Period, the cumulative quantum of credited Units carried forward will be re-set to zero.

- d) The Junior Accounts Officer (Revenue) in case of LT/Senior Accounts Officer (HT) in case of HT shall compute the amount payable to the Eligible Consumer for the excess solar energy purchased by the Electricity Department, Puducherry during the Financial year as specified at Para 4 (iii) (c) above, latest by April 30th of the following year and shall pay the amount to the eligible consumer by May 31st of the following year.
- e) In case of Group Net Metering and Virtual Net Metering, the procedure stipulated at Regulations 11.7 and 11.8 of the Net Metering Regulations, 2019 shall be adhered to.

5.0 The other relevant regulatory requirement of Hon'ble Joint Electricity Regulatory Commission for the State of Goa and UTs, which are not specifically mentioned in these guidelines, shall be adhered to.

6.0 These guidelines are only indicative purpose and all practical purpose, the provisions in the JERC (Net Metering Regulations, 2019) and amendments made from time to time shall be strictly complied with.

7.0 The Standard Operating Procedures and Timeline to be followed are given in **Annexure-6**.

APPLICATION FORM FOR SETTING UP OF GRID CONNECTED SOLAR PV POWER GENERATION SYSTEM

Date:

To

The Assistant Executive Engineer/Assistant Engineer / Executive Engineer/Superintending Engineer (Name of the jurisdictional O & M area),
Electricity Department, Puducherry/Karaikal/Mahe/Yanam

Sir,

I / we herewith apply for a Solar Energy Gross Metering / Net Metering / Group Net Metering / Virtual Net Metering connection for the solar power project of which details are given below:-

1	Name of the Applicant	
2	Address of the Applicant (Mailing Address)	
3	Telephone/ Mobile Number	
4	e-mail address	
5	Address of the premises at which solar plant is to be installed	
6	Whether for an individual premises/ Group/Society	
7	a. Consumer Code of the Service connection to which Solar installation is to be synchronized	
	b. Category	
	c. Sanctioned Load / Contract Demand (KW/KVA /HP)	
	d. Supply Voltage (in Volts)	
8	Capacity of the proposed Solar plant (KWp)	
9	Voltage at the output of Solar Inverter (Volts)	
10	Capacity of existing Solar plants in the above service connection, if any	
11	Details of other electricity connection in the name of the Applicant in the UT of Puducherry, if any	
12	Details of Registration fees paid (Rs. 500/- + 18% GST)	

Signature with name:
Position if on behalf of a
Group or Society
Address:

Date:

LIST OF DOCUMENTS TO BE ATTACHED WITH APPLICATION FORM

1. Copy of the Electricity Bill of the consumer (any electricity bill from last six months)
2. General Power of Attorney in favour of signatory in case of Partnership firm., certified true copy of the Resolution, authorizing the signatory deal with Electricity Department, passed by the Board of Directors in case of Companies (as applicable)
3. Proof of payment of Registration Fee

TECHNICAL FEASIBILITY REPORT

1. <u>Applicant Details</u>		
Name of the Consumer		
Address		
Telephone / Mobile Number		
e-mail address		
Service connection policy code		
Contracted Sanctioned Load (KW) (A)		
2. <u>Existing Service Connection Meter(s) details</u>		
Meter Make and Type		
Serial Number		
Voltage		
Capacity		
3. <u>Distribution Transformer Details</u>		
Name of the Distribution Transformer		
Location of the DTR		
Name of the HT Feeder		
DTR Capacity in KVA (B)		
Voltage Ratio of the DTR		
Solar PV connection already connected to this DTR (Nos.)		
Solar PV Capacity already connected to this DTR in KWp (C)		
Proposed Solar PV Capacity in KWp (D)		
Total Solar PV capacity including the proposed new capacity (E=C+D)		

Technical Feasibility Check:

a.	Is, the total solar PV capacity (E) in KWp is not more than 75% of the DTR capacity in KVA (B) [$E \leq B \times 75\%$] : Yes / No	
b.	Is, the proposed solar PV capacity in KW (D) equal to or less than, the sanctioned load of the service connection in KW (A) ($D \leq A$) : Yes / No	
c.	Is the proposed Solar PV system connectivity technically feasible: Yes / No	

In view of the above, the proposed Solar PV capacity / addition is: Technically feasible / Not feasible

Date :

Signature of the Sub-Divisional Officer
(with Stamp)

WORK COMPLETION REPORT

- A. SOLAR PV MODULE
 - 1 Model No.
 - 2 Total Capacity in KWp
 - 3 Make
 - 4 Type of Module
 - 5 No. of modules
 - 6 Capacity of each module
 - 7 No. of series & parallel
 - 8 Module Efficiency
 - 9 RFID Tag
 - 10 Test Certificate details
 - a No. & Date of issue
 - b Certifying Agency
 - c Validity

Enclose Test Certification Report

- B POWER CONDITIONING UNIT/INVERTER
 - 1 Model No.
 - 2 Serial No.
 - 3 Capacity in KWp
 - 4 Make
 - 5 No. of Inverters
 - 6 Input Voltage to Inverter
 - 7 Test Certificate Details
 - a No. & Date of issue
 - b Certifying Agency
 - c Validity

Enclose Test Certification Report

- C CABLES : DC
 - 1 Make
 - 2 Size & Type
 - 3 Rated Voltage

- D CABLES : AC
 - 1 Make
 - 2 Size & Type
 - 3 Rated Voltage

- E DC DISTRIBUTION BOX
 - 1 Make
 - 2 Serial No.
 - 3 DC Surge Protection Device
 - 4 MCB / Isolator Quantity & Capacity

- F AC DISTRIBUTION BOX
 - 1 Make
 - 2 Serial No.
 - 3 AC Surge Protection Device
 - 4 MCB / Isolator Quantity & Capacity

- G EARTHING
- 1 Size of the earth flat
 - 2 Earthing Test Report
 - a Applied Voltage
 - b No. of earth pits

Location	Values
Earth Pit 1	
Earth Pit 2	
Earth Pit 3	
- H PRE-COMMISSIONING TEST REPORT
- a DC Test Report

Inverter No.	String No.	Polarity	Voc
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 - b AC Test Report

Phase sequence					
L1-N Volts	L2-N Volts	L3-N Volts	L1-L2 Volts	L2-L3 Volts	L1-L3 Volts
- I BI-DIRECTIONAL ENERGY METER
- 1 Serial No.
 - 2 Make
 - 3 Capacity
 - 4 Single / Three Phase
 - 5 CT Ratio
 - 6 Date of Test by Lab, EDP
- J CAUTION SIGNS
- Size of Caution Label: 105 mm x 20 mm (W x H), with white letters on a red background
- a Panels
 - b Inverters
 - c DC / AC Distribution Box
- K DRAWINGS
- Enclosed the SLD of the Plant

Certified that the above said Rooftop Solar PV system has been installed by me and the equipments used comply the technical and safety standards issued under CEA Regulations.

Licensed Supervisor:

Signature :
 Name :
 Seal :
 Date :

Licensed Supervisor:

Signature :
 Name :
 Seal :
 Date :

Consumer:

Signature :
 Name :
 Date :

Net Metering Connection Agreement

This Agreement is made and entered into at Puducherry _____ on this (date) _____ day of (month) _____ (year) _____ between the Eligible Consumer (Name) _____ having premises at (address) _____ and Consumer No. _____ as the FIRST PARTY,

AND

The Distribution Licensee, the Superintending Engineer - cum – HoD (hereinafter referred to as 'the Licensee') and having its Registered Office at No. 137, N.S.C. Bose Salai, Puducherry – 605001 as SECOND PARTY of this Agreement;

Whereas, the Eligible Consumer has applied to the Licensee for approval of a Net Metering Arrangement under the provisions of the Joint Electricity Regulatory Commission (Solar PV Grid Interactive System based on Net Metering) Regulations, 2019 (herein after referred to as 'the Net Metering Regulations') and sought its connectivity to the Licensee's Distribution Network;

And whereas, the Licensee has agreed to provide Network connectivity to the Eligible Consumer for injection of electricity generated from its Solar Project of _____ kilowatt;

Both Parties hereby agree as follows: -

1. Eligibility

The Solar Project meets the applicable norms for being integrated into the Distribution Network, and that the Eligible Consumer shall maintain the Project accordingly for the duration of this Agreement.

2. Technical and Inter-connection Requirements

2.1. The metering arrangement and the inter-connection of the Solar Project with the network of the Licensee shall be as per the provisions of the Net Metering Regulations and the technical standards and norms specified by the Central Electricity Authority for connectivity of distributed generation resources and for the installation and operation of meters.

2.2. The Eligible Consumer agrees, that he shall install, prior to connection of the Solar Project to the network of the Licensee, an isolation device (both automatic and in built within inverter and external manual relays); and the Licensee shall have access to it if required for the repair and maintenance of the Distribution Network.

2.3. The Licensee shall specify the interface/inter-connection point and metering point.

2.4. The Eligible Consumer shall furnish all relevant data, such as voltage, frequency, circuit breaker, isolator position in his System, as and when required by the Licensee.

3. Safety

3.1. The equipment connected to the Licensee's Distribution System shall be compliant with relevant International (IEEE/IEC) or Indian Standards (BIS), as the case may be, and the installation of electrical equipment shall comply with the requirements specified by the Central Electricity Authority regarding safety and electricity supply.

3.2. The design, installation, maintenance and operation of the Solar Project shall be undertaken in a manner conducive to the safety of the Roof-top Solar PV System as well as the Licensee's Network.

3.3. If, at any time, the Licensee determines that the Eligible Consumer's Solar Project is causing or may cause damage to and/or results in the Licensee's other Consumers or its assets, the Eligible Consumer shall disconnect the Solar Project from the distribution network upon direction from the Licensee, and shall undertake corrective measures at his own expense prior to re-connection.

3.4. The Licensee 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 Project when the grid supply is off. The Licensee may disconnect the installation at any time in the event of such exigencies to prevent such accident.

4.0 Other Clearances and Approvals

The Eligible Consumer shall obtain any statutory approvals and clearances that may be required, such as from the Electrical Inspector or the municipal or other authorities, before connecting the Solar Project to the distribution Network.

5.0 Period of Agreement, and Termination

This Agreement shall be for a period for 25 years from the date of synchronisation with Grid i.e. on, but may be terminated prematurely

- a) By mutual consent; or
- b) By the Eligible Consumer, by giving 30 days' notice to the Licensee;
- c) By the Licensee, by giving 30 days' notice, if the Eligible Consumer breaches any terms of this Agreement or the provisions of the Net Metering Regulations and does not remedy such breach within 30 days, or such other reasonable period as may be provided, of receiving notice of such breach, or for any other valid reason communicated by the Licensee in writing.

6.0 Access and Disconnection

6.1 The Eligible Consumer shall provide access to the Licensee to the metering equipment and disconnecting devices of Solar Project, both automatic and manual, by the Eligible Consumer.

6.2. If, in an emergent or outage situation, the Licensee cannot access the disconnecting devices of the Solar Project, both automatic and manual, it may disconnect power supply to the premises.

6.3. Upon termination of this Agreement under Clause 5, the Eligible Consumer shall disconnect the Solar Project forthwith from the Network of the Licensee.

7.0 Liabilities

7.1 The Parties shall indemnify each other for damages or adverse effects of either Party's negligence or misconduct during the installation of the Solar Project, connectivity with the distribution network and operation of the System.

7.2 The Parties shall not be liable to each other for any loss of profits or revenues, business interruption losses, loss of contract or goodwill, or for indirect, consequential, incidental or special damages including, but not limited to, punitive or exemplary damages, whether any of these liabilities, losses or damages arise in contract, or otherwise.

8.0 Commercial Settlement

8.1 The commercial settlements under this Agreement shall be in accordance with the Net Metering Regulations.

8.2 The Licensee shall not be liable to compensate the Eligible Consumer if his Solar Project is unable to inject surplus power generated into the Licensee's Network on account of failure of power supply in the grid/Network.

8.3 The existing metering System, if not in accordance with the Net Metering Regulations, shall be replaced by a bidirectional meter (whole current/CT operated), and a separate generation meter may be provided to measure Solar power generation. The bi-directional meter (whole current/CT operated) shall be installed at the inter-connection point to the Licensee's Network for recording export and import of energy.

8.4 The uni-directional and bi-directional meters shall be fixed in separate meter boxes in the same proximity.

8.5 The Licensee shall issue monthly electricity bill for the net metered energy on the scheduled date of meter reading. If the exported energy exceeds the imported energy, the Licensee shall show the net energy exported as credited Units of electricity as specified in the Net Metering Regulations, 2019. If the exported energy is less than the imported energy, the Eligible Consumer shall pay the Distribution Licensee for the net energy imported at the prevailing tariff approved by the Commission for the Consumer category to which he belongs.

9.0 Connection Costs

The Eligible Consumer shall bear all costs related to the setting up of the Solar Project, excluding the Net Metering Arrangement cost beyond the Net Meter.

10.0 Dispute Resolution

10.1 Any dispute arising under this Agreement shall be resolved promptly, in good faith and in an equitable manner by both the Parties.

10.2. Disputes pertaining to billing / payments and metering shall be referred to the Consumer Grievances Redressal Forum (CGRF) and then to the Ombudsman appointed under sub-section 6 of Section 42 of the Act for settlement in case the same is not resolved at CGRF.

In the witness, where of

(Name)_____

(Name)_____

for and on behalf of Eligible Consumer

for and on behalf of (Licensee)

agree to this agreement.

Witness:

Witness:

Technical Requirements for Grid Connected Solar PV Power Plants

The quality of equipment used in grid connected solar photovoltaic power projects shall comply with the technical parameters as specified by MNRE from time to time. The current parameters are as indicated for reference:

1. SPV Modules

The SPV modules used in the grid connected solar power projects must qualify to the latest edition of any of the following IEC PV module qualification test or equivalent BIS standards. Each PV module used in any solar power project must use a RF identification tag

Crystalline Silicon Solar Cell Modules	: IEC 61215
Thin Film Modules	: IEC 61646
Concentrator PV modules	: IEC 62108

2. Power Conditioners/ Inverters

The Power Conditioners/ Inverters of the SPV power plants must conform to the latest edition of IEC/ equivalent Standards as specified below:

Efficiency Measurements	: IEC 61683
Environmental Testing	: IEC 60068-2/IEC 62093
EM Compatibility (EMC)	: IEC 61000-6-2, IEC 61000-6-4 & Other relevant parts of IEC 61000
Electrical safety	: IEC 62103/ IEC 62109-1&2
Anti-Islanding Protection	: IEEE 1547/IEC 62

3. Other Sub-systems / Components:

The other subsystems/components used in the SPV power plants such as Cables, Connectors, Junction Boxes, Surge Protection Devices, etc. must also conform to the relevant international/ national Standards for Electrical Safety. It is recommended that the Cables of 600-1800 Volts DC for outdoor installations should comply with the BS EN 50618:2014 I 2pfg 1169/08.2007 for service life expectancy of 25 years.

4. Test certificates

The PV modules / Power Conditioners deployed in the power plants must have valid test certificates for their qualification as per above specified IEC/ BIS Standards by one of the NABL Accredited Test Centres in India. In case of module types like Thin Film and CPV / equipment for which such Test facilities may not exist in India at present, test certificates from reputed ILAC Member Labs abroad will be acceptable.

Standard Operating Timeline for setting up of Solar Rooftop PV Plants

Activity	Responsibility	Timeline (Max Working Days)
Submission of Application	Consumer	Zero Day
Acknowledgment of Application by the Department	Sub-Division Engineer	1 Day
Technical Feasibility Study	Junior Engineer Sub-Division Engineer	3 Days
Rectification of Deficiencies and Compliance in the Application	Consumer	15 Days
Issue of Installation Approval without deficiencies	Sub-Division Engineer Executive Engineer Superintending Engineer	(3) Days (+ 3 Days + 6 Days)
Installation of Rooftop Solar System, Meter Procurement Intimation & Testing at Department Lab, Submission of Work Completion Report along with manufactures test certificates/ Safety Certificate from Electrical Inspectorate (if applicable)/ Submission of Net Metering Agreement	Consumer	120 Days
Inspection of the Installation and communication of deficiencies, if any to the consumer	Junior Engineer Sub-Division Engineer/ Assistant Engineer- HTM/ LTM (as the case may be)	3 Days
Preparation of comprehensive report without deficiencies/ <u>submission of compliance report on deficiencies by the consumer and Issue of Synchronization approval</u>	Sub-Division Engineer	2 Days
Rectification of Deficiencies and Compliance in the Installation.	Consumer	15 Days
Issue of Synchronization approval	Sub-division Engineer Executive Engineer Superintending Engineer	1 Day 3 Days 7 Days
Installation of Meter and synchronization with Grid and submission of synchronization Report	Sub-Division Engineer Assistant Engineer- HTM / LTM (as the case may be)	1 Day
Billing Process	Junior Accounts Officer (Revenue)/ Senior Accounts Officer (HT)	Next Billing cycle

No. 8988/ED/EE-MRT & MMC/JE/F-5/2023-24
GOVERNMENT OF PUDUCHERRY
ELECTRICITY DEPARTMENT

Puducherry, 30/01/2024

Sub: Electricity Department, Puducherry – EE-MRT & MMC – Revised Guidelines for providing Grid connectivity to Ground Mounted and Rooftop Solar Power Plants under JERC - Net Metering Regulations, 2019 – Reg.

Ref: 1. No.3044/ED/SE/HOD/EE-MRT&MMC/F-RT-Solar/2017-18 dt. 23/02/2018.
2. No. 8988/ED/EE-MRT & MMC/JE/F-5/2023-24 dated 13/10/2023

It is informed that the Government of India has fixed a target for RTS saturation in residential buildings in the UT of Puducherry by the year 2026. To accelerate the process of effecting Grid connectivity to the Solar installations, this Department has revised the Guidelines communicated earlier vide reference 2nd cited for strict compliance with immediate effect.

Further, the required formats have been formulated for uniform adoption by the Field Officers and Consumers. The Executive Engineers are requested to direct the Sub-Divisional Engineers / Section Officers to strictly adhere to the provisions of the revised Guidelines and the timelines given therein.

Encl. : One copy of Guidelines

Sd/-
Superintending Engineer - cum - HoD

To

1. The Executive Engineer – Urban/C & TTC/SPM & Bldgs./Rural North/Rural South/General, Electricity Department, Puducherry
2. The Executive Engineer – Karaikal, Electricity Department, Karaikal
3. The Assistant Engineer, Mahe / Yanam, Electricity Department, Mahe/Yanam
4. The Assistant Engineer – Computer, E.D.P – to upload the Guidelines in the Dept.'s website.
5. The Assistant Engineer/ LTM – to arrange to test the meter received directly from consumer /solar vendor within 1 working day.

Copy to

The Superintending Engineer – O & M-PR/MP & ORs, Electricity Department, Puducherry