

**JOINT ELECTRICITY REGULATORY COMMISSION  
FOR THE STATE OF GOA AND UNION TERRITORIES  
GURGAON**

Quorum  
Smt. Neerja Mathur, Member  
**Petition No. 200/2016**  
**Date of Hearing: 13.05.2016**  
**Date of Order: 29.12.2016**

**In the matter of:**

Petition for approval of Draft Solar Net Metering Agreement / Gross Metering Power Purchase Agreement (PPA)

**And in the matter of:**

The Superintending Engineer, Electricity Department, Chandigarh

...Petitioner

**Present**

**For the Petitioner**

Shri M.P. Singh, Superintending Engineer

**ORDER**

The Petitioner has submitted this Petition for approval of the Draft Solar Net Metering Agreement and Gross Metering Power Purchase Agreement.

The Commission had earlier uploaded a suggestive Power Purchase Agreement on its website along with the notification of the JERC for the State of Goa and Union Territories (Grid Connected Solar Power) Regulations, 2015, which has been followed by all the territories under the jurisdiction of the Commission.

The Petitioner has vide this Petition, requested the Commission to modify the existing suggestive Power Purchase Agreement to make it more generic, and to bifurcate the gross metering and net metering clauses. As these agreements shall be followed by all the territories, the Commission decided to upload the draft agreement on its website and invited comments on it from all the Utilities. The Commission received comments from Crest, Chandigarh, Electricity Department, Puducherry and an Independent Consultant, Puducherry, which were examined and deliberated in detail in the Commission in light of the Electricity Act, 2003 and Rules and Regulations made thereunder.

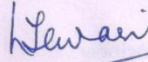
The Commission is of the considered view that it would be appropriate to provide a model Solar Net Metering Agreement and Gross Metering Power Purchase Agreement.

Accordingly, as an integral part of this Order, the Commission approves a model Solar Net Metering Agreement and Gross Metering Power Purchase Agreement as placed at Annexure 'A' & 'B' to facilitate execution of agreement(s) by the Solar Power Generator and the Distribution Licensee.

Ordered accordingly.

Sd/-  
(NEERJA MATHUR)  
MEMBER

CERTIFIED COPY



(KEERTI TEWARI)  
SECRETARY

कीर्ति तिवारी/Keerti Tewari  
सचिव/Secretary  
संयुक्त विद्युत विनियामक आयोग  
Joint Electricity Regulatory Commission  
राज्य और संघ राज्य क्षेत्र  
For the State of Goa & Union Territories  
वाणिज्य निकाज, दूसरी मंजिल, उद्योग विहार, फेज-5  
वुडगांव, गुडगांव-122018, हरियाणा

# **Model Solar Gross Metering Power Purchase Agreement**

**Between**

**[•name of the Distribution Licensee•]**

**and**

**[•name of the Solar Power Generator•]**

**Service Connection Number (if applicable): [•number•]**

**[•date•] , [•month•], [•year•]**



This Agreement made at [•place•] on this [•date•] day of [•month•], [•year•] between [**•name of the Solar Power Generator•**], [•address of the Solar Power Generator•], hereinafter referred to as the “Solar Power Generator”, which expression shall wherever the context so permits, mean and includes the successors in interest, executors, administrators and assigns as party of the first part and [**•name of the Distribution Licensee•**] represented by [designation of signatory]and having office at [•address•], [•city•] [•postal code•], hereinafter referred to as the “Distribution Licensee”, which expression shall wherever the context so permits, mean and include the successors in interest, administrators and assigns. Both the Solar Power Generator and the Distribution Licensee shall be collectively referred to as “the Parties”.

Whereas the Solar Power Generator has agreed to avail the solar gross metering facility for the Solar Power Plant of capacity [•number•] kW, installed at [•location•] with service connection No. [•number•] (if applicable);

And whereas the Distribution Licensee shall provide grid connectivity and Solar gross metering to the above mentioned Solar Power Plant on the terms and conditions as set out herein below;

It is hereby agreed between the parties as follows.

## **1. Definitions**

- 1.1. “Act” means the Electricity Act, 2003 (36 of 2003) and subsequent amendments thereof.
- 1.2. “Applicable Rules and Regulations” shall have the same meaning as defined in Article 2. of this document.
- 1.3. APPC or Average Pooled Cost of Power Purchase of State or UT shall mean the weighted average price at which the distribution licensee has purchased power including cost of self-generation if any, in the previous financial year from all the energy suppliers, excluding short term power purchases and those based on renewable energy.”
- 1.4. “Authority” shall mean the Central Electricity Authority as referred to in sub-section (1) of Section 70 of the Act.
- 1.5. “Billing cycle” shall mean the period for which regular electricity bills as specified by the Commission, are prepared for different categories of consumers by the Distribution Licensee.
- 1.6. “Commissioning Date” shall mean the date on which the Solar Photovoltaic Power Generating Plant is synchronised and starts feeding the Solar Power to the Grid.
- 1.7. ”Commission” or “JERC” shall mean the Joint Electricity Regulatory Commission for the State of Goa and Union Territories of Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Puducherry and Lakshadweep referred to in sub-Section (1) of section 82 of the Act and constituted under the Act.
- 1.8. "Consumer" means any person who is supplied with electricity for his own use by a licensee or the Government or by any other person engaged in the business of supplying electricity to the public under this Act or any other law for the time being in force and



includes any person whose premises are for the time being connected for the purpose of receiving electricity with the works of a licensee, the Government or such other person, as the case may be;

- 1.9. "Distribution Licensee" shall mean a person who is granted a license under Section 14 (b) of the Act. A licensed Supplier of Electricity is also covered under this definition.
- 1.10. "Effective Date" shall mean the date of execution of the Power Purchase Agreement by both the parties or the date when Solar Plant starts feeding power to the grid whichever is later.
- 1.11. "Electricity Supply Code" shall mean the Electricity Supply Code specified under Section 50 of the Act and subsequent amendments thereof.
- 1.12. "Eligibility Criteria" shall mean a Solar PV of capacity equal to or more than 500 kWp, and Rooftop Solar Power of capacity equal to or more than 1 kWp but not more than 500 kWp at one location owned by one individual or entity or a house/ factory / Warehouse / Government building / Panchayat Bhavan / Community centre/ School/ dispensary / hospital / parking shed or place/ a solar plant on elevated structure / floating solar plant /Group housing society / Resident welfare society/ market roof top or any such entity, based on the technologies approved by Ministry of New & Renewable Energy of Government of India. The Rooftop projects of ratings higher than 500 kWp can be considered by the distribution licensee if the distribution system remains stable with higher rating Solar Projects getting connected to the grid.
- 1.13. "Energy Feed-In Check Meter" shall mean an energy meter, which shall be connected in series with the Gross Energy Meter (and in the case of CT-VT operated meters to the same core of the current transformer (CT) and voltage transformer (VT) of the Gross Energy Meter) and shall be used for accounting and billing of electricity in case of failure of the Gross Energy Meter.
- 1.14. "Gross Energy Meter" shall mean an energy meter that is installed to record the energy exported to the grid.
- 1.15. "Energy Feed-In Payment Advice" shall mean a written advice from the Distribution Licensee to the Solar Energy Generator, which includes the opening and closing readings of the Gross Energy Meter for the Energy Feed-in Payment Cycle for which payment shall be made by Distribution Licensee to Solar Power Generator.
- 1.16. "Energy Feed-In Payment Cycle" shall mean a period, for which Solar Power Generator shall be paid for the Exported Energy by Distribution Licensee.
- 1.17. "Exported Energy" shall mean the active energy (in terms of kWh) exported to the Grid by a Solar Power Generator.
- 1.18. "Feed in Tariff" shall mean tariff for ex-bus supply of electricity from Solar PV generating station for the purpose of accounting.
- 1.19. "Grid" shall mean the low voltage electrical network, the high voltage distribution and transmission network or the high voltage backbone system of inter-connected transmission lines, sub-stations and generating plants for sale of energy or wheeling of

energy as defined in the “Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Grid Connected Solar Power Regulations), 2015”.

- 1.20. "Gross Metering" shall mean an arrangement whereby a Solar Power Plant is connected to the Grid through a Gross Energy Meter and whereby the Solar Power Generator gets paid for the total solar energy fed by it into the Grid.
- 1.21. "Invoice" shall mean a document prepared by the Solar Power Generator (SPG) for sending it to the Licensee giving details of energy exported to the grid of the licensee in terms of kWh for which the licensee owes a payment to the SPG.
- 1.22. "Installed Capacity" shall mean the summation of the name plate capacities expressed in kWp of all the units of the generating station or the capacity of the project reckoned at the output terminals of the solar project.
- 1.23. "Interconnection Point" shall mean the interface point of a Solar Power Plant with the distribution network of the Distribution Licensees at appropriate voltage level as defined in the Applicable Rules and Regulations.
- 1.24. "Month" shall mean English calendar month starting with the 1st day / date of the month and ending with last day/ date of the month. A Part Month will be the applicable number of days in proportion to the total number of days in the specific month.
- 1.25. "Obligated Entity" shall mean the licensed Supplier of Power, Distribution Licensee(s), Captive User(s) and Open Access Consumer(s), identified under Procurement of Renewable Power Energy Regulations of the Commission and mandated under clause (e) of subsection (1) of Section 86 of the Act to fulfil the renewable purchase obligations as determined by the Commission from time to time.
- 1.26. "Open Access Consumer" shall mean a consumer permitted by the Distribution Licensee / Commission to receive supply of electricity from a person, other than the Distribution Licensee of his area of supply, and the expression(s) includes a generator and a licensee, who has availed of open access.
- 1.27. "Power Purchase Agreement" (PPA) shall mean an agreement for a fixed term between the Solar Project Generator as the seller of the Solar Power & the Distribution Licensee as buyer of solar power.
- 1.28. "Premises" shall include any land, building or structure also covering Rooftop of a house / factory/ Warehouse / Government building/ Panchayat Bhavan / Community centre/ School/ dispensary / hospital / parking place / 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, and in respect of which a separate meter or metering arrangements have been made by the licensee for supply of electricity. The premises exclude the historic structure (unless permission is taken from the appropriate authority).

- 1.29. "Renewable Energy Certificate" or "REC" shall mean the certificate issued in accordance with the procedures approved by the Central Electricity Regulatory Commission.
- 1.30. "Renewable Purchase Obligation" or "RPO" means the requirement specified by the State Commissions under clause (e) of sub-section (1) of Section 86 of the Act, for the obligated entity to purchase electricity from renewable energy sources.
- 1.31. "Solar Power Plant" shall mean a grid connected solar photo voltaic energy generating system including the evacuation system upto the grid connected point.
- 1.32. "Solar Power Generator (SPG)" shall mean a person who generates solar power from the approved Solar Power Plant.
- 1.33. "State Agency" shall mean the agency in the concerned State or Union Territory as may be designated by the Commission to act as the agency for accreditation and recommending the renewable energy projects for registration, and to undertake such functions as may be specified under clause (e) of sub-section (1) of Section 86 of the Act.
- 1.34. "Year" or "Financial Year" shall mean a period commencing on 1st April of an English Calendar year and ending on 31st March of the subsequent calendar year.

## **2. Applicable Rules and Regulations**

This agreement is subject to the following rules and regulations, hereinafter collectively referred to as the "Applicable Rules and Regulations" and includes any amendments thereof.

- a) Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Grid Connected Solar Power) Regulations, 2015;
- b) Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Supply Code and Performance Standards) Regulations, 2010;
- c) Central Electricity Authority (Technical Standards for Connectivity of Distributed Generation Resources) Regulations, 2013
- d) Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006;
- e) Central Electricity Authority (Measures of Safety and Electricity Supply) Regulations, 2010;
- f) Power Quality & Protection and Controls shall conform to the standards specified in the CEA (Technical Standards for connectivity to the grid) Regulations, 2007 and CEA (Technical Standards for Connectivity of Distributed Generation Resources) Regulations, 2013, applicable to the distribution system as amended from time to time.
- g) Indian Electricity Rules, 1956.



- h) Any other provision that becomes applicable at the time of signing of the PPA as per the Regulation.

All other words and expressions used in this agreement, if not specifically defined herein above, but defined in the Act, shall have the same meaning as assigned to them in the Act. The other words and expressions used herein but not specifically defined in this agreement, regulations or the Act but defined under any other law passed by the Parliament applicable to the electricity industry in the State or Union Territory shall have the same meaning assigned to them in such law.

In consideration of the premises and mutual covenants and conditions set forth herein, it is hereby agreed by and between the parties hereto as follows:

### **3. Technical and Interconnection Requirements**

- 3.1. The SPG shall be required to obtain all information with regard to the Grid interconnection facilities as is reasonably necessary to enable it to design, install and operate all interconnection plant and apparatus on the its side of the Delivery Point in accordance with prudent utility practices, applicable grid code and the terms of this agreement for delivery of solar energy at the agreed Delivery Point.
- 3.2. All the equipment connected to the Distribution Licensee's distribution system must be compliant with Indian Standards (BIS) wherever available, and International Standards (IEEE/IEC) wherever Indian Standards are not available. The installation of electrical equipment must comply with the Applicable Rules and Regulations.
- 3.3. The SPG shall furnish the technical data of the Solar Power Plant that may be required by the Distribution Licensee.

- 3.4. The grid-connected Solar Power Plant of the SPG shall be treated as a 'Must Run' power plant and shall not be subjected to 'merit order dispatch by the Distribution Licensee.
- 3.5. The Distribution Licensee shall not be responsible for any damages to his Solar Power Plant resulting from parallel operation with the Grid and that the Distribution Licensee shall not be liable to pay any such damages.

#### **4. Safety and Operation Requirements**

- 4.1. The design, installation, maintenance and operation of the photovoltaic system by the SPG shall be performed in a manner conducive to the safety of the Solar Power Plant as well as the Distribution Licensee's distribution system.
- 4.2. In case the grid is not ready to receive power for any reasons that are beyond the control of the SPG, the SPG shall not energize the Licensee's distribution system. The SPG is solely responsible for any accident to human beings / animals whatsoever (fatal / non-fatal / departmental / non-departmental) that may occur if the Solar Power Plant energizes the Grid during the outage or is not operational.
- 4.3. The Distribution Licensee shall not be liable to pay any compensation to the SPG for deemed generation benefits in case the Distribution Licensee is unable to absorb the power due to reasons which are beyond control of the Distribution Licensee/ Company.
- 4.4. The Distribution Licensee reserves the right to disconnect the SPG's installation at any time in the event of the Solar Power Plant damaging its Grid, meter or other equipment to prevent any accident or damage.
- 4.5. In view of the Distribution Licensee's obligation to maintain a safe and reliable distribution system, the SPG shall disconnect the Solar Power Plant immediately from the distribution system upon direction from the Distribution Licensee, if it is determined by the Distribution Licensee that the Solar Power Plant either causes damage to and / or produces adverse effects affecting Consumers or stability of the grid or assets of the Distribution Licensee and rectify the problem at his own expense prior to reconnection of its Solar Power Plant to the Grid.

- 4.6. The SPG shall install a DC main switch or isolator before the Solar Grid Inverter, and AC main switch between the Solar Grid Inverter and the Gross Energy Meter, which shall be accessible to the Distribution Licensee and will enable the Solar Power Plant's disconnection from the Distribution Licensee's distribution system.

## **5. Gross Energy Metering**

- 5.1. To measure the solar energy fed-in to the Grid by the SPG, a Gross Energy Meter with the standards and specifications as provided in the Applicable Rules and Regulations shall be installed by the SPG.
- 5.2. For existing service connections, the Gross Energy Meter shall be installed as close as possible to the existing Service Connection Meter or another location as mutually agreed between the SPG and the Distribution Licensee.
- 5.3. If the Solar Power Plant is installed at a location where there is no existing electrical service connection of the Distribution Licensee, the Interconnection Point and the location of the Gross Energy Meter shall be mutually agreed between the SPG and Distribution Licensee.
- 5.4. The Distribution Licensee shall arrange to test and seal the Gross Energy Meter for which the SPG shall bear the testing charges.
- 5.5. The SPG may, at his own cost, install a Check Meter for Gross Energy metering having the standards and specifications as provided in the Applicable Rules and Regulations, which should be got tested from the distribution licensee after paying the requisite fee.
- 5.6. The metering arrangement, meter testing, checking and calibration shall be in accordance with the Applicable Rules and Regulations.

## **6. Energy Metering Accounting and Settlement**

- 6.1. The SPG shall bear all costs pertaining to installation, testing, calibration, maintenance, renewal and repair of meters up to the SPG's side of Delivery Point of the Solar Power.

6.2. At the end of each Energy feed in payment cycle, the Distribution Licensee and the SPG will jointly take readings of energy exported under Gross Metering arrangement. The SPG make an Invoice for the Solar Energy exported under Gross Metering arrangement for payments to be made by the licensee. The mode of payment shall be a cheque or bank transfer (..... bank details) as agreed between the parties.( delete not applicable)

6.3. Energy Export shall be accounted and paid for as under:

6.3.1. The Feed in Solar Energy Tariff agreed upon between the Distribution Licensee and the SPG under this agreement shall be as under:

6.3.1.1. Reference to Solar Power Tariff order of the Commission: [•solar energy tariff order number and date•]

a. Price per kilowatt-hour: Rs. [•number•]

b. Capital Subsidy Claimed: Yes / No Tick the applicable option.

c. Validity: [•number years•]

For the term of this agreement as provided for in clause 7.1 of this agreement.

d. Applicability of Tariff is with: Accelerated Depreciation (AD) / Without AD.  
(Strike out whichever is not applicable) shall be applicable.

Whether, AD benefit will be availed or not is to be indicated by the SPG on an affidavit at the beginning of each financial year.

In case any benefit is not considered while working out the Tariff under these Regulations, but becomes available to the SPG later, or if any material fact is not indicated by the SPG at the initial stage and is found subsequently, the Commission has the right to terminate the PPA.

6.3.2. The Distribution Licensee will make payment to the SPG for each Energy Feed-In Payment Cycle within the stipulated time of 15 (fifteen) days from the date of the receipt of Invoice from the SPG, by direct transfer to the bank account of the SPG or by issue of a cheque.

6.3.2.1. The SPG shall be exempted from charges in respect of electricity banking, wheeling, and line losses till any change is announced by the Commission in this regard and cross subsidy to the extent of the solar energy produced.

6.4. Energy Accounting in case of meter(s) becomes defective:

6.4.1. The Solar Power fed to the grid for the days meter(s) are defective, shall be computed in different conditions as under:

Sl.	Condition of Meters		Period of operation of Gross Metering Facility	Energy Accounting
	Gross Energy meter	Feed-in Check meter)		
i	Defective	Installed and working		Readings of Gross Feed-in Check meter will be used.
ii	Defective	Not installed or Installed but defective.	More than 12 months	Active energy export readings for corresponding period of the previous year will be taken.
			Less than 12 months	The Exported Energy for each day shall be computed as follows: $SPPC \times 4.00 \text{ kWh}$ where "SPPC" is the Solar Power Plant capacity in kWp

6.4.2. Energy accounting in case of defective meter as above, shall be for a maximum period of 60 (sixty days). If the SPG does not repair or replace the Gross Energy Meter within this period of 60 (sixty) days, the Distribution Licensee shall be entitled to stop the payments for the Exported Energy till the Gross Energy Meter has been repaired or replaced.

6.4.3. The payment released by the licensee in respect of the exported energy based on the invoice received from the SPG shall be considered as conclusive provided that the Licensee does not dispute the invoiced amount within 15 days of receipt of invoice and make payment within 15 days of the receipt of the invoice.

6.4.4. In the event of any dispute raised by the Licensee in regard to the invoice presented by SPG, the licensee within fifteen (15) days of the receipt of the invoice shall pay to the SPG an amount equivalent to 75% of the disputed amount along with a dispute notice furnishing the following:

- i. reasons for its disagreement to the disputed invoiced amount;
- ii. its estimate of what the correct amount should be.

- 6.4.5. The SPG can raise an objection to the dispute notice within 15 days of the receipt at its end, of the dispute notice from the licensee and furnishing reasons for its objections.
- 6.4.6. If subsequently, the Licensee agrees to the claim raised by SPG, the short payment shall be made by the licensee along with interest at the rate at which the late payment surcharge is leviable from the date such payment becomes due.
- 6.4.7. Upon receipt of the objections raised by the SPG on the invoice dispute notice by the Licensee, the authorized representative(s) of both the Parties shall meet and make best endeavors to amicably resolve such dispute within fifteen (15) days of receipt of the Objection Notice raised by the SPG in regard to above.
- 6.4.8. All the disputes between the parties arising out of or in connection with this agreement shall be resolved through mutual negotiation. In case of failure to resolve the dispute, either of the parties may approach the Commission.
- 6.4.9. A rebate of 2(two) % shall be allowed if the payment for energy exported is within 5 (five) working days of the invoices.
- 6.4.10. Late Payment Surcharge: In case the payment is delayed by the licensee beyond a period specified above a late payment surcharge of 1.25% of the invoice amount per month

## **7. Taxes and Duties**

- 7.1. Taxes and duties by the appropriate Government / Administration on sale proceeds of export energy if applicable and whenever applicable shall be allowed as pass through on actual incurred basis.

## **8. Term and Termination of the Agreement**

- 8.1. This agreement shall be in force for twenty five years from the Commissioning Date.



8.2. The Distribution Licensee may terminate this agreement with 30 days prior written notice if the SPG breaches any of the terms of this agreement and does not remedy the breach within 30 days of receiving a written notice from the Distribution Licensee regarding the breach.

8.3. The SPG shall disconnect the Solar Power Plant from the Licensee's distribution system in a time bound manner and to the satisfaction of the Distribution Licensee upon termination of the agreement.

## **9. Investment towards Grid Augmentation and Interconnectivity**

9.1. Grid Augmentation Costs: The cost of any grid augmentation required after the interconnection point in the system of the Distribution Licensee shall be borne by the said Distribution Licensee. However, the SPG shall make arrangements to connect the Solar Power Project switchyard with the Interconnection Facilities at the Delivery Point.

9.2. The SPG setting up the Solar Power project shall apply to the Distribution Licensee for connectivity with the distribution network system.

9.3. The Distribution Licensee shall within [•number•] days (mutually agreed) of receipt of application, inform to the SPG whether the Project can be connected to the grid without further system strengthening and take steps to allow connectivity within [•number•] days of such intimation.

9.4. If system strengthening or grid augmentation is required, the Distribution Licensee shall inform the same to the SPG within 30 days of receipt of application of the SPG. In such a case, interconnection of the SPG to the grid shall be established within [•number•] days of such intimation.

9.5. The SPG shall be required to comply with the applicable Grid Code requirements and directions, as applicable.

## **10. Renewable Purchase Obligations (RPOs) and Renewable Energy Certificates**

- 10.1. The SPG shall be entitled for RECs only if the Solar Power is sold to the Grid at average pooled power Cost (APPC) of the Distribution Licensee. The computation of the APPC shall be done as defined in the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Grid Connected Solar Power Regulations) 2015.
- 10.2. The Solar energy generated by the SPG shall be counted towards having met the Renewable Purchase Obligations (RPOs) by the Distribution Licensee only if such Solar Power is not part of the RPOs or RECs claimed by the SPG.
- 10.3. The Conventional Energy replaced by Solar Energy generated for self-use by any Consumer shall also be counted towards RPO compliance, provided no RECs are claimed for the same by the SPG.

## **11. Plant Communication Facilities**

- 11.1. All grid connected Solar Power projects shall have meters with features to record energy for 45 days data storage for injection into the grid through solar meter as provided under these Regulations. All projects with capacity 100 kWp and above shall have communication Port for exchanging real time information with the Distribution Licensee. For plant size of One (1) MWp and above the Communication will be with State Load Despatch Centre (SLDC) also in addition to the Distribution Licensee.

The SPG shall be responsible for provision of compatible equipment for uninterrupted communication with the concerned control centre and shall be responsible for successful integration with the communication system provided by Distribution Licensee for data communication. The SPG shall also be responsible for expansion /up gradation as well as operation and maintenance of communication equipment at their end.

## **12. Third Party Sale (if applicable)**

- 12.1. The Commission under its Solar Power Regulations – (Grid Connected, Ground Mounted and Roof top and the Metering Regulation)- 2015 allows third party sale of the energy generated through the Solar Plant provided the buyer and the seller are in the same territory. However, the buyer of the power will be levied the cross subsidy for the units of power bought, if the same are applicable for the buyer for grid power supply. The rate of Cross subsidy will be the same as applicable to the buyer of the Power even without buying Solar Power.

**13. Additional Requirements of the Solar Project of 1 MW and Above**

13.1. Monitoring and forecasting- The SPG shall install necessary equipment for regular monitoring of solar irradiance (including DNI), ambient air temperature, wind speed and other weather parameters along with monitoring of the electric power generated from the solar power plant. The SPG shall submit the above data (in form of a report) on line for the entire period of this Agreement to the Commission for up-dating its records on quarterly basis.

**14. Insurance**

14.1. Throughout the Term of the PPA, the SPG shall effect and maintain or cause to be effected and maintained, at its own cost and expense, Insurances against such risks, with such deductibles and with such endorsements and co-insured(s), which the Prudent Utility Practices would ordinarily merit maintenance of and as required under the Financing Agreements.

**15. Impact of change in law**

15.1. In case of any change in Law during the tenure of this agreement, the aggrieved Party shall be required to approach the Commission for seeking approval of the impact due to change in Law (if any).

**16. Force Majeure**

16.1. A "Force Majeure" means any event or circumstance or combination of events and circumstances as stated below that wholly or partly prevents or unavoidably delays an Affected Party (the Seller or the Procurers whose performance has been adversely affected by an event of Force Majeure) in the performance of its obligations under this Agreement, but only if and to the extent that such events or circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided if the Affected Party had taken reasonable care in performing its obligations:

16.1.1. An Act of God, including, but not limited to lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, or

16.1.2. Explosion, accident or breakage of transmission facilities to deliver power from the Delivery Points to the receiving substation(s); or

16.1.3. Any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action making the performance of obligations as specified herein as impossible; or

16.1.4. Radioactive contamination or ionising radiation originating from a source in India or resulting from another Force Majeure Event mentioned above excluding circumstances where the source or cause of contamination or radiation is brought or has been brought into or near the Power Project by the Affected Party or those employed or engaged by the Affected Party.

16.1.5. An event of force majeure affecting the concerned State Transmission Utility (STU), as the case may be, thereby affecting the evacuation of power from the Delivery Points by the Procurers;

## 16.2. Force Majeure Exclusions

16.2.1. Force Majeure shall not include

- (i) any event or circumstance which is within the reasonable control of the Parties and
- (ii) the following conditions, except to the extent that they are consequences of an event of Force Majeure:
  - a. Non-performance resulting from normal wear and tear typically experienced in power generation materials and equipment;
  - b. Strikes at the facilities of the Affected Party;
  - c. Insufficiency of finances or funds or the agreement becoming onerous to perform; and
  - d. Non-performance caused by, or connected with, the Affected Party's:
    - i. Negligent or intentional acts, errors or omissions;
    - ii. Failure to comply with an Indian Law; or
    - iii. Breach of, or default under this Agreement.

## 16.3. Notification of Force Majeure Event

16.3.1. The Affected Party shall give notice to the other Party of any event of Force Majeure as soon as reasonably practicable, but not later than seven (7) days after the date on which such Party knew or should reasonably have known of the commencement of the event of Force Majeure. If an event of Force Majeure results in a breakdown of communications rendering it unreasonable to give notice within the applicable time limit specified herein, then the Party claiming Force Majeure shall give such notice as soon as reasonably practicable after reinstatement of communications, but not later than one (1) day after such reinstatement.

Provided, that such a notice shall be a pre-condition to the Affected Party's entitlement to claim relief under this Agreement. Such notice shall include full particulars of the event of Force Majeure, its effects on the Party claiming relief and the remedial measures proposed. The Affected Party shall give the other Party regular (and not less than monthly) reports on the progress of those remedial measures and such other information as the other Party may reasonably request about the Force Majeure event.

16.3.2. The Affected Party shall give notice to the other Party of (i) the cessation of the relevant event of Force Majeure; and (ii) the cessation of the effects of such event of Force Majeure on the performance of its rights or obligations under this Agreement, as soon as practicable after becoming aware of each of these cessations.

#### 16.4. Duty to Perform and Duty to Mitigate

16.4.1. To the extent not prevented by a Force Majeure event pursuant to Article 15.1 the Affected Party shall continue to perform its obligations pursuant to this Agreement. The Affected Party shall use its reasonable efforts to mitigate the effect of any Force Majeure event as soon as practicable.

#### 16.5. Available Relief for a Force Majeure Event

(a) No Party shall be in breach of its obligations pursuant to this Agreement except to the extent that the performance of its obligations was prevented, hindered or delayed due to a Force Majeure Event;

(b) Every Party shall be entitled to claim relief in relation to a Force Majeure Event in regard to its obligations as specified under this Agreement;

(c) For avoidance of any doubt, neither Party's obligation to make payments of money due and payable prior to occurrence of Force Majeure events under this Agreement, shall be suspended or excused due to the occurrence of a Force Majeure Event in respect of such Party.

(d) Provided that no payments shall be made by either Party affected by a Force Majeure Event for the period of such event on account of its inability to perform its obligations due to such Force Majeure Event;

The obligations of the Distribution Licensee under this Agreement towards the SPG shall not be affected in any manner by reason of inter-se disputes amongst the Parties.

**17. Other Clauses**

This Power Purchase Agreement supersedes and replaces all previous agreement(s) if any, between the parties.

Other mutually agreed clauses, if any required by the two parties for this agreement may also be suitably included.

In witness whereof the SPG and the Distribution Licensee has signed this agreement in two originals on date.(One original with each party).

*Solar Power Generator*

**[•name of the Solar Power Generator /  
Solar Power Generator organisation•]**

*Distribution Licensee*

**[•name of the Distribution Licensee•]**

*[•designation•]*

*[•designation•]*

Place: [•place•]

Place: [•place•]

Date: [•date•]

Date: [•date•]

Witness 1

Witness 1

Witness 2

Witness 2



## **Model Solar Net Metering Agreement**

**Between**

**[•name of the Distribution Licensee•]**

**and**

**[•name of Solar Power Generator•]**

**Service Connection Number: [•number•]**

**[•date•] , [•month•], [•year•]**

Model Agreement for Solar Net Metering -JERC

This agreement made at [•place•] on this [•date•] day of [•month•], [•year•] between [**•name of the Solar Power Generator•**], [•address of the Solar Power Generator•], hereinafter referred to as the "Solar Power Generator", which expression shall wherever the context so permits, mean and includes the successors in interests, executors, administrators and assigns as party of the first part and [**•name of the Distribution Licensee•**] represented by [designation of signatory]and having office at [•address•], [•city•] [•postal code•], hereinafter referred to as "Distribution Licensee", which expression shall wherever the context so permits, mean and include the successors in interest, administrators and assigns. Both the Solar Power Generator and the Distribution Licencee shall be collectively referred to as Parties.

Whereas the Solar Power Generator –who is also a Consumer of the same licensee , has agreed to avail the solar net metering facility for the Solar Power Plant of capacity [•number•] kW, installed at [•location•] with service connection No. [•number•];

And whereas the Distribution Licensee has agreed to provide grid connectivity with solar net metering arrangement to the above mentioned Solar Power Plant on the terms and conditions as set out herein below;

It is hereby agreed between the parties as follows.

1. **Definitions**

- 1.1. "Act" means the Electricity Act, 2003 (36 of 2003) and subsequent amendments thereof.
- 1.2. "Applicable Rules and Regulations" shall have the same meaning as defined in Article 2.0 of this document.
- 1.3. APPC or Average Pooled Cost of Power Purchase of State or UT shall mean the weighted average price at which the distribution licensee has purchased power including cost of self-generation if any, in the previous financial year from all the energy suppliers, excluding short term power purchases and those based on renewable energy."
- 1.4. "Authority" shall mean the Central Electricity Authority as referred to in sub-section (1) of Section 70 of the Act.
- 1.5. "Billing cycle" shall mean the period for which regular electricity bills as specified by the Commission, are prepared for different categories of consumers by the Distribution Licensee.
- 1.6. "Commissioning Date" shall mean the date on which the Solar Photovoltaic Power Generating Plant is synchronised and starts feeding the Solar Power to the Grid.
- 1.7. "Commission" or "JERC" shall mean the Joint Electricity Regulatory Commission for the State of Goa and Union Territories of Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Puducherry and Lakshadweep as referred to in sub-Section (1) of Section 82 of the Act and constituted under the Act.
- 1.8. "Consumer" means any person who is supplied with electricity for his own use by a licensee or the Government or by any other person engaged in the business of supplying electricity to the public under this Act or any other law for the time being in force and includes any person whose premises are for the time being connected for the purpose of receiving electricity with the works of a licensee, the Government or such other person, as the case may be;

- 1.9. "Consumer Grievances Redressal Forum" shall mean the forum for redressal of grievance of Consumers, established under sub-section 5 of Section 42 of the Act.
- 1.10. "Distribution Licensee" shall mean a person who is granted a license under section 14 (b) of the Act. A licensed Supplier of Electricity is also covered under this definition.
- 1.11. "Effective Date" shall mean the date of execution of the agreement by both the parties or the date when Solar Plant starts feeding power to the grid whichever is later.
- 1.12. "Electricity Supply Code" shall mean the Electricity Supply Code specified under Section 50 of the Act and subsequent amendments thereof.
- 1.13. "Eligibility Criteria" shall mean a Solar PV of capacity equal to or more than 500 kWp, and Rooftop Solar Power of capacity equal to or more than 1 kWp but not more than 500 kWp at one location owned by one individual or entity or a house/ factory / Ware house / Government building / Panchayat Bhavan / Community centre/ School/ dispensary / hospital / parking shed or place/ a solar plant on elevated structure / floating solar plant / Group housing society / Resident welfare society/ market roof top or any such entity, based on the technologies approved by Ministry of New & Renewable Energy of Government of India. The Rooftop projects of ratings higher than 500 kWp can be considered by the distribution licensee if the distribution system remains stable with higher rating Solar Projects getting connected to the grid.
- 1.14. "Energy Feed-In Check Meter" shall mean an energy meter, which shall be connected in series with the Net Energy Meter (and in the case of CT-VT operated meters to the same core of the current transformer (CT) and voltage transformer (VT) of the Net Energy Meter) and shall be used for accounting and billing of electricity in case of failure of the Net Energy Meter.
- 1.15. "Energy Feed-In Payment Advice" shall mean a written advice from the Distribution Licensee to the Solar Energy Generator which includes the opening and closing readings of the Net Energy Meter for the Energy Feed-In Payment Cycle for which payment shall be made by Distribution Licensee to Solar Power Generator.
- 1.16. "Energy Feed-In Payment Cycle" shall mean the period for which Solar Power Generator shall be paid for the Net Exported Energy by the Distribution Licensee.
- 1.17. "Grid" shall mean the low voltage electrical network, the distribution and transmission network or the high voltage backbone system of inter-connected transmission lines, sub-stations and generating plants for sale of energy or wheeling of energy as defined in the "Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Grid Connected Solar Power Regulations) – 19/2015".
- 1.18. "Group Net Metering" shall mean that more than one electricity account of the same Consumer with the same licensed supplier within a state or union territory can share the benefit of a single solar project on one of the locations of the Consumer. Sharing of the benefit at other locations shall be availed after fully adjusting the imports of one Consumer connection.
- 1.19. "Installed Capacity" shall mean the summation of the name plate capacities expressed in kWp of all the units of the generating station or the capacity of the project reckoned at the output terminals of the Solar Project. .

- 1.20. "Imported Energy" shall mean the active energy (in terms of kwh) imported from the Grid by a Solar Power Plant.
- 1.21. "Interconnection Point" shall mean the interface point of a Solar Power Plant with the distribution network of the Distribution Licensees at appropriate voltage level as defined in the Applicable Rules and Regulations.
- 1.22. "Month" shall mean English calendar month starting with the 1st day / date of the month and ending with last day/ date of the month. A Part Month will be the applicable number of days in proportion to the total number of days in the specific month.
- 1.23. "Net Energy Meter" shall mean an energy meter that is installed to record net energy imported or exported by the Consumer.
- 1.24. Net "Exported Energy" shall mean the difference of meter readings of energy injected by the SPG into the grid (export) and the energy drawn from the grid for use by the seller of solar power (import) recorded in the Net Meter (a bi-directional meter) installed at the premises of the Consumer.
- 1.25. "Ombudsman" shall mean the person appointed in accordance with sub-section 6 of Section 42 read with Section 181 of the Act.
- 1.26. "Obligated Entity" shall mean the licensed Supplier of Power, Distribution Licensee(s), captive user(s) and Open Access Consumer(s), identified under Procurement of Renewable Power Energy Regulations of the Commission and mandated under clause (e) of subsection (1) of Section 86 of the Act to fulfil the renewable purchase obligations as determined by the Commission from time to time.
- 1.27. "Open Access Consumer" shall mean a consumer permitted by the Distribution Licensee to receive supply of electricity from a person other than the Distribution Licensee of his area of supply, and the expression(s) includes a generator and a licensee, who has availed of open access.
- 1.28. "Premises" shall mean any land, building or structure including Rooftop of a house / factory/ Warehouse / Government building/ Panchayat Bhavan / Community centre/ School/ dispensary / hospital / parking place / 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, and in respect of which a separate meter or metering arrangements have been made by the licensee for supply of electricity. The premises exclude historic structures (unless permission is taken from appropriate authority).
- 1.29. "Prosumer" shall mean a Consumer who is also a Producer of Solar Power.
- 1.30. "Renewable Energy Certificate" or "REC" shall mean the certificate issued in accordance with the procedures approved by the Central Electricity Regulatory Commission.
- 1.31. "Renewable Purchase Obligation" or "RPO" means the requirement specified by the State Commissions under clause (e) of sub-section (1) of Section 86 of the Act, for the obligated entity to purchase electricity from renewable energy sources.

- 1.32. "Solar Power Plant" shall mean a grid connected solar photo voltaic energy generating system including the evacuation system upto the grid interconnecting point.
- 1.33. "Solar Power Generator" (SPG) shall mean a person who generates Solar Power from the approved project.
- 1.34. "State Agency" shall mean the agency in the concerned State or Union Territory as may be designated by the Commission to act as the agency for accreditation and recommending the renewable energy projects for registration, and to undertake such functions as may be specified under clause (e) of sub-section (1) of Section 86 of the Act.
- 1.35. "Third Party" shall mean a developer who owns a Solar Power Plant that is installed on the roof or elevated structure or land for which a commercial lease or revenue share agreement has been entered into by the Solar Power developer.
- 1.36. "Year" or "Financial Year" shall mean a period commencing on 1st April of an English Calendar year and ending on 31st March of the subsequent calendar year.

## **2. Applicable Rules and Regulations**

This agreement is subject to the following rules and regulations, hereinafter collectively referred to as the "Applicable Rules and Regulations" and includes any amendments thereof:

- a) Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Grid Connected Solar Power Regulations) -2015;
- b) Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Supply Code and Performance Standards) Regulations 2010;
- c) Central Electricity Authority (Technical Standards for Connectivity of Distributed Generation Resources) Regulations, 2013
- d) Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006;
- e) Central Electricity Authority (Measures of Safety and Electricity Supply) Regulations, 2010;
- f) Power Quality & Protection and Controls: Power Quality & Protection and Controls shall conform to the standards specified in the CEA (Technical Standards for connectivity to the grid) Regulations, 2007 and CEA (Technical Standards for Connectivity of Distributed Generation Resources) Regulations, 2013, applicable to the distribution system as amended from time to time.
- g) Indian Electricity Rules, 1956.
- h) Any other provision that becomes applicable at the time of signing such a agreement as per the Regulation of the competent authority.

All other words and expressions used in this agreement, if not specifically defined herein above, but defined in the Act, shall have the same meaning as assigned to them in the Act. The other words and expressions used herein but not specifically defined in this agreement, regulations or the Act but defined under any other law



passed by the Parliament applicable to the electricity industry in the State or Union Territory shall have the same meaning assigned to them in such law.

In consideration of the premises and mutual covenants and conditions set forth herein, it is hereby agreed by and between the parties hereto as follows:

### 3. **Technical and Interconnection Requirements**

- 3.1. The SPG shall be required to obtain all information with regard to the Grid interconnection facilities as is reasonably necessary to enable it to design, install and operate all interconnection plant and apparatus on the its side of the Delivery Point in accordance with prudent utility practices, applicable grid code and the terms of this agreement for delivery of solar energy at the agreed Delivery Point.
- 3.2. All the equipment connected to the Distribution Licensee's distribution system must be compliant with Indian Standards (BIS) wherever available, and International Standards (IEEE/IEC) wherever Indian Standards are not available. The installation of electrical equipment must comply with the Applicable Rules and Regulations.
- 3.3. The SPG shall furnish the technical data of the Solar Power Plant that may be required by the Distribution Licensee.
- 3.4. The grid-connected Solar Power Plant of the SPG shall be treated as a 'Must Run' power plant and shall not be subjected to 'merit order dispatch by the Distribution Licensee.
- 3.5. The Distribution Licensee shall not be responsible for any damages to his Solar Power Plant resulting from parallel operation with the Grid and that the Distribution Licensee shall not be liable to pay any such damages.

### 4. **Safety and Operation Requirements**

- 4.1. The design, installation, maintenance and operation of the photovoltaic system by the SPG are performed in a manner conducive to the safety of the Solar Power Plant as well as the Distribution Licensee's distribution system.
- 4.2. The SPG shall ensure that in case the Grid cannot be fed with the Solar Power for operational reasons the Solar Power Generator shall not energize the Licensee's distribution system. The SPG is solely responsible for any accident to human beings / animals whatsoever (fatal / non-fatal / departmental / non-departmental) that may occur if the Solar Power Plant energizes the Grid during the outage or is not operational.

- 4.3. The Distribution Licensee shall not be liable to pay any compensation to the SPG for deemed generation benefits in case the Distribution Licensee is unable to absorb the power due to the reasons which are beyond control of the Distribution Licensee/ Company.
- 4.4. The Distribution Licensee reserves the right to disconnect the SPG's installation at any time in the event of the Solar Power Plant damaging its Grid, meter or other equipment to prevent any accident or damage.
- 4.5. The SPG shall install a DC main switch or isolator before the Solar Grid Inverter, and AC main switch between the Solar Grid Inverter and the Net Energy Meter, which should be accessible to the Distribution Licensee and will enable the Solar Power Plant's disconnection from the Distribution Licensee's distribution system.
- 4.6. In view of the Distribution Licensee's obligation to maintain a safe and reliable distribution system, the SPG agrees that if it is determined by the Distribution Licensee that the Solar Power Plant either causes damage to and / or produces adverse effects affecting Consumers or stability of the grid or assets of the Distribution Licensee, the SPG shall have to disconnect the Solar Power Plant immediately from the distribution system upon direction from the Distribution Licensee and rectify the problem at his own expense prior to reconnection of its Solar Power Plant to the Grid.

## 5. **Net Energy Metering**

- 5.1. To measure the net solar energy fed-in to the Grid by the SPG, a net energy meter with the standards and specifications as provided in the Applicable Rules and Regulations shall be installed by the SPG.
- 5.2. For existing service connections, the Net Energy Meter shall be installed as close as possible to the existing Service Connection Meter or another location as mutually agreed between the SPG and the Distribution Licensee.
- 5.3. If the Solar Plant is installed at a location where there is no existing electrical service connection of the Distribution Licensee, the Interconnection Point and the location of the Net Energy Meter shall be mutually agreed between the SPG and the Distribution Licensee.
- 5.4. The Distribution shall arrange to test and seal the Net Energy Meter for which the SPG shall bear the testing charges.
- 5.5. The SPG may optionally, at his own cost, install a Check Meter for Net Energy metering having the standards and specifications as provided in the Applicable Rules and Regulations, which should be got tested from the distribution licensee after paying the requisite fee.
- 5.6. The metering arrangement, meter testing, checking and calibration shall be in accordance with the Applicable Rules and Regulations.

6. **Energy Metering, Accounting and Settlement**

- 6.1. The SPG shall bear all costs pertaining to installation, testing, calibration, maintenance, renewal and repair of meters up to the SPG's side of Delivery Point of the Solar Power.
- 6.2. At the end of each Billing Cycle, the Distribution Licensee will take readings of the Net energy imported or exported as recorded in the net energy meter which is a bi-directional Meter.
- 6.2.1. If the import of energy is higher than the export of the energy, the Prosumer will be presented an Invoice / Electricity Bill indicating the difference between imported and exported energy (i.e. the net-imported energy). The bill will be raised at the consumer tariff applicable to the Prosumer's service connection,.
- 6.2.2. If at the beginning of a Billing Cycle any export surplus or a credit of banked energy is already available to the credit of the Prosumer, and in the current billing cycle also, the energy exported exceeds the energy imported, the cumulative export surplus of energy (in kWh) will be carried over to the next Billing Cycle as a credit to be adjusted further.
- 6.3. The readings shall be taken jointly to eliminate the disputes to the extent possible.
- 6.4. The surplus Solar Power generated during peak tariff timings at the credit of the Prosumer will be adjusted against peak tariff rates (if applicable) and the balance credit units will be adjusted against energy imports at non-peak rates (if applicable).
- 6.5. A final energy bill shall be prepared by the Distribution Licensee (in kWh) within the stipulated time of 15 days at the end of each Settlement Period, including group net metering (if applicable).
- 6.6. Net Energy Export shall be accounted and paid as under:
- 6.6.1. If the Distribution Licensee fails to issue a net Energy Export Payment Advice within the stipulated time of 15 (Fifteen) days at the end of settlement period, the Prosumer can raise such an invoice to the Distribution Licensee within 15 days thereafter. The Prosumer shall be entitled to receive payment from the distribution licensee for the net Exported Energy Surplus on the basis of such invoice within 15 (Fifteen) days from the receipt of such invoice by the distribution licensee along with interest for the delayed payment as due.
- 6.6.2. The net energy exported to the Grid (measured in kWh) can only be utilized to offset the electricity consumption (measured in kWh) and not for adjustment of any other fees or charges levied by the Distribution Licensee.
- 6.6.3. Electricity Duty, if applicable, shall be payable by the Prosumer on the net energy imported from the Grid.

6.7. The settlement of overall net export energy surplus during a financial year may be done as per one of the following options as may be mutually agreed between the Parties.

6.7.1. Twice a year i.e. by 30th September and 31st March and respective payments released not later than 31st October and 30th April.

6.7.2. Once a year i.e. by 31st March (if opted by the Prosumer), and payments released not later than 30th April.

The mode of payment can be a cheque or bank transfer.

6.7.3. Rate Payable for Net Energy Export: The payments for net Solar energy exported in excess of the imported energy to be made by the Distribution Licensee shall remain fixed for the life of the Plant as follows:

6.7.3.1. Rate per kilowatt-hour: Rs. [•number•][as per APPC applicable during the financial year prior to the Financial year in which the Solar Plant started feeding to the grid]. This rate per kWh shall be applicable to all the territories under the jurisdiction of the Commission except for UTs of Lakshadweep and Andaman & Nicobar Islands.

6.7.3.2. Rate per Kilowatt- hour Rs. [•number•] [as per the applicable generic tariff determined by the Commission for the financial year when the plant starts feeding the Solar Power to the Grid]. This rate per kWh shall be applicable to the UTs Lakshadweep and Andaman & Nicobar Islands.

6.8. The Distribution Licensee shall make the payment to the SPG for each Energy Feed-In Payment Cycle within 15 (fifteen) days from the date of the receipt of Energy Feed-In Payment invoice from the SPG for the receivable amount.

6.9. The SPG shall be exempted from the charges in respect of electricity banking, wheeling, and cross subsidy to the extent of the solar energy produced. This exemption shall be till the Commission announces any change in this regard for the new Solar Power Projects getting commissioned later.

6.10. Energy Accounting in case of meter(s) becoming defective:

6.10.1. The Solar Power fed to the grid for the days meter(s) are defective, shall be computed in different conditions as under:

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Sl.	Condition of Meters		Period of operation of Net Metering Facility	Energy Accounting
	Net Energy meter	Feed-in Check meter)		
i.	Defective	Installed and working		Readings of net Feed-in Check meter will be used.
ii.	Defective	Not installed or Installed but defective.	More than 12 months	Active energy import, active energy export and active energy net import/export readings for corresponding period of the previous year will be taken.
			Less than 12 months	The Net Exported Energy for each day shall be computed as follows: SPPC x 4.00 kWh where "SPPC" is the Solar Power Plant capacity in kWp

- 6.11. Energy accounting in case of defective metering as above, shall be for a maximum period of 60 (sixty days). If the SPG does not repair or replace the net Energy Meter within this period of 60 (sixty) days, the Distribution Licensee shall be entitled to stop the payments for the Net Exported Energy till the net Energy Meter has been repaired or replaced.
- 6.12. The payment released by the licensee in respect of the net energy export invoice shall be considered as conclusive, provided that the SPG does not dispute the net billing amount within 30 days of the receipt of the payment
- 6.13. In the event of any dispute raised by the SPG in regard to the net billing amount, the licensee shall within fifteen (15) days of the receipt of the Bill Dispute Notice pay to the SPG an amount equivalent to 75% of the disputed amount or issue a credit note for 75% of the disputed amount for the net billing amount.
- 6.14. If subsequently, the Licensee agrees to the claim raised by the SPG, the short payment shall be made by the licensee along with interest at the rate at which the late payment surcharge is leviable from the date such payment becomes due.

If the Licensee does not agree to the claim raised in the Bill Dispute Notice issued by the SPG it shall, within fifteen (15) days of receipt of such a notice, furnish its objections to the SPG stating:

- i. reasons for its objections on the disputed amount;
- ii. its estimate of what the correct amount should be; and
- iii. all the written material in support of its counter-claim

- 6.15. Upon receipt of the objections raised by the licensee to the bill dispute notice of the SPG the authorized representative(s) of both the Parties shall meet and make best endeavors to amicably resolve such dispute within fifteen (15) days of receipt of the Objection Notice by the SPG on the Bill dispute by SPG.
- 6.16. If the Parties do not amicably resolve the dispute within fifteen (15) days as above the matter shall be referred to the CGRF for Dispute resolution.
- 6.17. A rebate of 2 (two) % shall be allowed if the payment for energy exported is within 5 (five) working days of the invoices.
- 6.18. Late Payment Surcharge: In case the payment is delayed by the licensee beyond a period specified above a late payment surcharge of 1.25% of the billed amount per month.

## **7. Taxes and Duties**

- 7.1. Taxes and duties by the appropriate Government / Administration on sale proceeds of net export energy if applicable and whenever applicable shall be allowed shall be allowed as pass through on actual incurred basis.

## **8. Term and Termination of the Agreement**

- 8.1. This agreement shall be in force for twenty five years from the Commissioning Date.
- 8.2. The Distribution Licensee has the right to terminate this agreement with 30 days prior written notice if the SPG breaches any of the terms of this agreement and does not remedy the breach within 30 days of receiving a written notice from the Distribution Licensee regarding the breach.
- 8.3. The SPG agrees that upon termination of this agreement, it shall disconnect the Solar Power Plant from the Licensee's distribution system in a timely bound and to the satisfaction of the Distribution Licensee.

## **9. Dispute resolution mechanism**

- 9.1. 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.

## **10. Investment towards Grid Augmentation and Interconnectivity**

- 10.1. Grid Augmentation Costs: The cost of any grid augmentation required after the interconnection point in the system of the Distribution Licensee shall be borne by the concerned Distribution Licensee. However, the SPG shall make arrangements to connect the Solar Power Project switchyard with the Interconnection Facilities at the Delivery Point.

- 10.2. The SPG setting up the Solar Power project shall apply to the Distribution Licensee for connectivity with the distribution network system.
- 10.3. The Distribution Licensee shall within [•number•] days (mutually agreed) of receipt of application, inform the to SPG whether the Project can be connected to the grid without further system strengthening and take steps to allow connectivity within [•number•] days of such intimation.
- 10.4. If system strengthening or grid augmentation is required, the Distribution Licensee shall inform the same to the SPG within 30 days of receipt of application of the SPG. In such a case, interconnection of the SPG to the grid shall be established within [•number•] days of such intimation.
- 10.5. The SPG shall be required to comply with the applicable Grid Code requirements and directions, as applicable.

#### **11. Renewable Purchase Obligations (RPOs)**

- 11.1. The Distribution Licensee may consider for RPO compliance the quantum of electricity generated from the Rooftop Solar PV System owned and operated by SPG.

#### **12. Plant Communication Facilities**

- 12.1. All grid connected Solar Power projects shall have meters with features to record energy for 45 days data storage for injection into the grid through a solar meter as provided under these Regulations. All projects with capacity 100 kWp and above shall have a communication Port for exchanging real time information with the Distribution Licensee. For a plant size of One (1) MWp and above the Communication will be with the State Load Despatch Centre (SLDC) in addition to the Distribution Licensee.
- 12.2. The SPG shall be responsible for provision of compatible equipment for un-interrupted communication with the concerned control centre and shall be responsible for successful integration with the communication system provided by the Distribution Licensee for data communication. The SPG shall also be responsible for expansion / upgradation as well as operation and maintenance of the communication equipment at their end.

#### **13. Additional Requirements of the Solar Project of 1 MW and Above**

- 13.1. Monitoring and forecasting- The SPG shall install necessary equipment for regular monitoring of solar irradiance (including DNI), ambient air temperature, wind speed and other weather parameters along with monitoring of the electric power generated from the solar power plant. The SPG shall submit the above data (in the form of a report) online for the entire period of this Agreement to the Commission for up-dating its records on quarterly basis.

**14. Insurance**

14.1. Throughout the term of this agreement, the SPG shall effect and maintain or cause to be effected and maintained at its own cost and expense insurance against such risks, with such deductibles and with such endorsements and co-insured(s), which the Prudent Utility Practices would ordinarily merit maintenance of and as required under the Financing Agreements.

**15. Impact of change in law**

15.1. In case of any change in Law during the tenure of this agreement, the aggrieved Party shall be required to approach the Commission for seeking approval of the impact due to change in Law (if any).

**16. Force Majeure**

16.1. A "Force Majeure" means any event or circumstance or combination of events and circumstances as stated below that wholly or partly prevents or unavoidably delays an Affected Party (the Seller or the Procurers whose performance has been adversely affected by an event of Force Majeure) in the performance of its obligations under this Agreement, but only if and to the extent that such events or circumstances are not within the reasonable control, directly or indirectly, of the Affected Party and could not have been avoided if the Affected Party had taken reasonable care in performing its obligations:

16.1.1. An Act of God, including, but not limited to lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, or

16.1.2. Explosion, accident or breakage of transmission facilities to deliver power from the Delivery Points to the receiving substation(s); or

16.1.3. Any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action making the performance of obligations as specified herein as impossible; or

16.1.4. Radioactive contamination or ionising radiation originating from a source in India or resulting from another Force Majeure Event mentioned above excluding circumstances where the source or cause of contamination or radiation is brought or has been brought into or near the Power Project by the Affected Party or those employed or engaged by the Affected Party.

16.1.5. An event of force majeure affecting the concerned STU, as the case may be, thereby affecting the evacuation of power from the Delivery Points by the Procurers;



16.2. Force Majeure Exclusions

16.2.1. Force Majeure shall not include

- (i) any event or circumstance which is within the reasonable control of the Parties and
- (ii) the following conditions, except to the extent that they are consequences of an event of Force Majeure:
  - a. Non-performance resulting from normal wear and tear typically experienced in power generation materials and equipment;
  - b. Strikes at the facilities of the Affected Party;
  - c. Insufficiency of finances or funds or the agreement becoming onerous to perform; and
  - d. Non-performance caused by, or connected with, the Affected Party's:
    - i. Negligent or intentional acts, errors or omissions;
    - ii. Failure to comply with an Indian Law; or
    - iii. Breach of, or default under this Agreement.

16.3. Notification of Force Majeure Event

- 16.3.1. The Affected Party shall give notice to the other Party of any event of Force Majeure as soon as reasonably practicable, but not later than seven (7) days after the date on which such Party knew or should reasonably have known of the commencement of the event of Force Majeure. If an event of Force Majeure results in a breakdown of communications rendering it unreasonable to give notice within the applicable time limit specified herein, then the Party claiming Force Majeure shall give such notice as soon as reasonably practicable after reinstatement of communications, but not later than one (1) day after such reinstatement.

Provided that such notice shall be a pre-condition to the Affected Party's entitlement to claim relief under this Agreement. Such notice shall include full particulars of the event of Force Majeure, its effects on the Party claiming relief and the remedial measures proposed. The Affected Party shall give the other Party regular (and not less than monthly) reports on the progress of those remedial measures and such other information as the other Party may reasonably request about the Force Majeure event.

- 16.3.2. The Affected Party shall give notice to the other Party of (i) the cessation of the relevant event of Force Majeure; and (ii) the cessation of the effects of such event of Force Majeure on the performance of its rights or obligations under this Agreement, as soon as practicable after becoming aware of each of these cessations.

16.4. Duty to Perform and Duty to Mitigate

16.4.1. To the extent not prevented by a Force Majeure event pursuant to Article 16.1 the Affected Party shall continue to perform its obligations pursuant to this Agreement. The Affected Party shall use its reasonable efforts to mitigate the effect of any Force Majeure event as soon as practicable.

16.5. Available Relief for a Force Majeure Event

(a) No Party shall be in breach of its obligations pursuant to this Agreement except to the extent that the performance of its obligations was prevented, hindered or delayed due to a Force Majeure event;

(b) Every Party shall be entitled to claim relief in relation to a Force Majeure event in regard to its obligations as specified under this Agreement;

(c) For avoidance of doubt, neither Party's obligation to make payments of money due and payable prior to occurrence of Force Majeure events under this Agreement shall be suspended or excused due to the occurrence of a Force Majeure event in respect of such Party.

(d) Provided that no payments shall be made by either Party affected by a Force Majeure Event for the period of such event on account of its inability to perform its obligations due to such Force Majeure Event;

The obligations of the Distribution Licensee under this Agreement towards the SPG shall not be affected in any manner by reason of inter-se disputes amongst the Parties.

17. **Other Clauses**

Other mutually agreed clauses, if any required by the two parties for this agreement may also be suitably included.

In witness whereof, the SPG and the Distribution Licensee have signed this agreement in two originals on date. (One original for each party).

*Solar Power Generator*

**[•name of the Solar Power Generator /  
Solar Power Generator organisation•]**

*Distribution Licensee*

**[•name of the Distribution Licensee•]**

*[•designation•]*

*[•designation•]*

Place: [•place•]

Place: [•place•]

Date: [•date•]

Date: [•date•]

Witness 1

Witness 1

Witness 2

Witness 2