

**MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED**

**PPA**

**FOR PROCUREMENT OF -- MW (AC) SOLAR POWER FROM PROJECTS  
TO BE DEVELOPED IN MAHARASHTRA OF MSEDCL THROUGH  
COMPETITIVE BIDDING PROCESS**

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This Power Purchase Agreement is made and entered into at Mumbai on this    day of -----  
2022    between    M/s-----Company    having    its  
registered office    -----at    -----India (hereinafter  
referred to as “Solar Power Producer”, which expression shall, unless repugnant to the context  
or meaning thereof, include its successors and assignees) as party of first part.

AND

Maharashtra State Electricity Distribution Company Limited incorporated under the  
Companies Act 1956 (1 of 1956) having its Registered office at Prakashgad, Bandra (East),  
Mumbai – 400 051, (hereinafter referred to individually, as “MSEDCL” or "Power Procurer",  
which expression shall, unless repugnant to the context or meaning thereof, include its  
successors and assignees) as party of the second part.

MAHARASHTRA ELCTRICITY DISTRIBUTION COMPANY LIMITED incorporated  
under The Companies Act 1956 (1 of 1956) having its Registered office at **Prakashgad, Plot  
G 9, Prof. Anant Kanekar Marg, Bandra (East), Mumbai 400 051**, (hereinafter referred to  
individually, as “MSEDCL” or "Power Procurer", which expression shall, unless repugnant to  
the context or meaning thereof, include its successors and assignees) as party of the  
second part.

WHEREAS MSEDCL vide RfS No. \_\_\_\_\_ floated tender for  
procurement of ..... MW (AC) SOLAR POWER FROM PROJECTS TO BE DEVELOPED in  
.....MAHARASHTRA of MSEDCL THROUGH COMPETITIVE BIDDING  
PROCESS and the Solar Power Producer has been declared Successful Bidder pursuant to  
Letter of Award (LoA) dated ..... for development of Solar Power Project of  
.....MW capacity located at----- and sale of entire of electrical energy, so produced, for  
commercial purposes from such Power Plant to MSEDCL.

AND, WHEREAS the Solar Power Producer has furnished Performance Bank  
Guarantee no..... dated ..... amounting to  
Rs. .... (calculated at Rs. 5 Lakh / MW) as per the RfS No.  
.....

AND, WHEREAS the Solar Power Producer desires to set-up/has set up Solar Energy based Power Plant of ..... MW capacity at Village ..... Taluka ..... District .....

AND, WHEREAS the Solar Power Producer has taken responsibility to set up requisite power injection system into MSEDCL network.

AND, WHEREAS the Parties hereby agree to execute this Power Purchase Agreement setting out the terms and conditions for the sale of power by Solar Power Producer to MSEDCL.

NOW THEREFORE IN VIEW OF THE FOREGOING PREMISES AND IN CONSIDERATION OF THE MUTUAL COVENANTS AND CONDITIONS HEREINAFTER SET FORTH, MSEDCL AND THE SOLAR POWER PRODUCER, EACH TOGETHER WITH THEIR RESPECTIVE SUCCESSORS AND PERMITTED ASSIGNS, A PARTY AND COLLECTIVELY THE PARTIES, HEREBY AGREE AS FOLLOWS:

# Article 1: DEFINITIONS

1. For all purposes of this Agreement, the following words and expressions shall have the respective meanings set forth below:

"**Agreement**" shall mean this Power Purchase Agreement executed hereof, including the schedules hereto, amendments, modifications and supplements made in writing by the Parties from time to time.

"**AMR**" shall mean Automated Meter Reading.

"**Approvals**" means the permits, clearances, licenses and consents as are listed in Schedule 3 hereto and any other statutory approvals.

"**Billing Period**" means (subject to Article 6.1 of the Agreement) the calendar month ending with the Metering Date. The first Billing Period shall commence from the Commercial Operation Date and end with the Metering Date corresponding to the month in which the Commercial Operation Date occurs.

"**Billing Date**" shall be the first Business Day after the Metering Date of each Billing Period.

"**Business Day**" shall mean a Day other than Sunday or a statutory holiday on which banks remain open for business in Mumbai.

"**Change in Law**" shall have the meaning ascribed thereto in Article 9 of this Agreement.

"**Commissioning**" with respect to the Project/ Unit as certified by SLDC/MSEDCL shall mean when all equipment's as per rated capacity has been installed and energy has flown into the grid.

"**Commercial Operation Date**" with respect to the Project / Unit shall mean the date on which the Project/ Unit is fully commissioned (certified by SLDC/MSEDCL) and available for commercial operation and such date as specified in a written notice given at least 30 days in advance by the Solar Power Producer to MSEDCL."

"**CERC**" means Central Electricity Regulatory Commission.

"**Contracted Capacity**" means the AC capacity of the project at the generating terminal(s)

and contracted with MSEDCL for supply from the Solar Power Project which shall be equal to.....(Insert MW).

**"Contract Year"** shall mean, with respect to the initial Contract Year, the period beginning on the Commercial Operation Date and ending at 12.00 midnight on 31st March of that Fiscal Year i.e. a period of twelve months commencing on April 1 and ending on following March 31. Each successive Contract Year shall coincide with the succeeding Fiscal Year, except that the final Contract Year shall end on the date of expiry of the Term or on Termination of this Agreement whichever is earlier.

**CTU"** means Central Transmission Utility.

**"Capacity Utilisation Factor (CUF)"** shall have the same meaning as provided in CERC (Terms & Conditions for tariff determination from renewable energy sources) Regulations, 2009 as amended from time to time. However for avoidance of any doubt, it is clarified that the CUF shall be calculated on the Contracted Capacity; In any Contract Year, if 'X' MWh of energy has been metered out at the Delivery Point for 'Y' MW Project capacity,  $CUF = (X \text{ MWh} / (Y \text{ MW} * 8766)) * 100\%$ ;

**"Delivery Point"**; shall mean the point(s) of connection(s) at which energy is delivered into the Grid System i.e. the Interconnection Point.

**"Delivered Energy"** means the kilowatt hours of Electricity actually fed and measured by the energy meters at the Delivery Point and as certified by SLDC/MSEDCL authorities.

**"Due Date of Payment"** in respect of a Tariff Invoice means the date, which is 30 (thirty) days from the date of receipt of such invoices by the designated official of the MSEDCL.

**"Effective Date"** shall mean the date of handing over of government land to successful bidder for development of solar project;

**"Electricity Laws"** shall mean the Electricity Act, 2003 and the relevant Rules, Notifications, and amendments issued there under and all other Laws in effect from time to time and applicable to the development, financing, construction, ownership, operation or maintenance or regulation of electric generating companies and Utilities in India, the rules, regulations and amendments issued by the MERC / CERC from time to time.

**"Emergency"** means a condition or situation of physical damage to CTU/STU electrical system including the Grid System, which threatens the safe and reliable operation of such system or which is likely to result in disruption of safe, adequate and continuous electric

supply by CTU/STU or MSEDCL Grid System or could endanger life or property.

**“Expiry Date”** shall mean the date occurring after twenty five (25) years from the Commercial Operation Date of proposed / new solar power projects.

**"Financing Documents"** mean the agreements and documents (including asset leasing arrangements) entered/to be entered into between the Solar Power Producer and the Financing Parties relating to the financing of the Project.

**"Financial Closure" or “Project Financing Arrangements”** shall mean arrangement of necessary funds by the successful Bidder / Solar Power Producer either by way of commitment of funds by the Company from its internal resources and/or tie up of funds through a bank / financial institution by way of a legally binding agreement/sanction letter for commitment of such finances, including the requirements under Clause 3.13 of the RfS document.

**“Financing Parties”** shall mean the parties financing the Project, pursuant to the Financing Documents.

**"Force Majeure Event"** shall have the meaning set forth in Article 8.

**“Handing over of land”** shall mean the date on which handing over & taking over letter is signed by both the parties.

**“MERC”** means the Maharashtra Electricity Regulatory Commission.

**"GoI" shall** mean the Government of the Republic of India and any agency, legislative body, department, political subdivision, authority or instrumentality thereof.

**"GoM" shall** mean the Government of the State of Maharashtra and any agency, legislative body, department, political subdivision, authority or instrumentality thereof.

**"Government Instrumentality"** shall mean the GoI, the GoM and their ministries, inspectorate, departments, agencies, bodies, authorities, legislative bodies.

**“Grid System”** shall mean STU / MSEDCL power transmission system / distribution system through which Delivered Energy is evacuated and distributed.

**“Interconnection Facilities”** in respect of the Solar Power Producer shall mean all the facilities installed by the Solar Power Producer to enable MSEDCL to receive the Delivered

Energy from the Project at the Delivery Point, including transformers, and associated equipment, relay and switching equipment, protective devices and safety equipment and transmission lines from the project to nearest sub-station.

**“Interconnection Point”**; shall mean the point(s) of connection(s) at which the project is connected to the grid i.e. it shall be at 11 / 22 kV bus bar level of substation of MSEDCL .

**“kV” shall** mean kiloVolts.

**“kWh” shall** mean kiloWatt-hour.

**"Law"** shall mean any valid legislation, statute, rule, regulation, notification, directive or order, issued or promulgated by any Governmental Instrumentality.

**“Letter of Award (LoA)”** shall mean the letter dated ..... issued by MSEDCL to the Successful bidder for award of the Contract.

**"Metering Date"** for a Billing Period, means the midnight of the last Day of the calendar month.

**“Metering Point”**; Metering shall be at 11 / 22 kV level of MSEDCL substation.

**“Monthly Energy Charge”** shall have the meaning set forth in Article 5.

**“MRI”** shall mean Meter Reading Instrument.

**“MW”** means Mega Watts.

**“O & M Default”** shall mean any default on the part of the Solar Power Producer for a continuous period of ninety (90) days to (i) operate and/or (ii) maintain (in accordance with Prudent Utility Practices), the Project at all times.

**“Performance Bank Guarantee”** shall mean the irrevocable unconditional bank guarantee submitted by the Solar Power Producer as per the RFS No. ....

**“Project”** shall mean a Solar Photovoltaic Grid Interactive Power Station to be established by the Solar Power Producer at -----, Taluka: -----, Dist: ----- in Maharashtra comprising of ----- number of units at single/multiple locations, aggregating to capacity of ----- MW and shall include land, buildings, plant, machinery, ancillary equipment, material, switch- gear, transformers, protection equipment and the like necessary to deliver the Electricity generated to MSEDCL at the Delivery Point.



**"Project Site"** means any and all parcels of real property, rights-of-way, easements and access roads located at Village- , Taluka- , District- , Maharashtra, upon which the Project and its related infrastructure will be located .

**"Project Developer" or "Power Producer" or "Developer" or "Solar Power Developer (SPD)" or Solar Power Generator (SPG) or "Bidder"** shall mean the Bidding Company or a Bidding Consortium participating in the bid and having been selected and allocated a project capacity by MSEDCL (through a competitive bidding process), including the SPV formed by the selected bidder/ consortium for the purpose of setting up of project and signing of PPA with MSEDCL;

**"Prudent Utility Practices"** shall mean those practices, methods, techniques and standards, that are generally accepted for use in electric utility industries taking into account conditions in India, and commonly used in prudent electric utility engineering and operations to design, engineer, construct, test, operate and maintain equipment lawfully, safely, efficiently and economically as applicable to power stations of the size, service and type of the Project, and that generally conform to the manufacturers' operation and maintenance guidelines.

**"SBI 1 Year MCLR Rate"** means 1 year Marginal Cost of Funds Based Lending Rate (MCLR) fixed by State Bank of India (SBI) / any replacement thereof by SBI for the time being in effect applicable for 1 year period, as on 1st April of the respective financial year in accordance with regulations and guidelines of Reserve Bank of India. In absence of such rate, any other arrangement that substitutes such rate as mutually agreed to by the Parties.

**"SCOD" or "Scheduled Commercial Operation Date"** shall mean the date which shall not exceed 12 (Twelve) months from the date of handing over of government land to successful bidder for development of solar project.

**"SEA"** means the State Energy Account issued by State Load Despatch Centre.

**"SLDC"** means the State load despatch center as notified by the State Government.

**"SNA"** means State Nodal Agency i.e. Maharashtra Energy Development Agency (MEDA).

**"STU or State Transmission Utility"** shall mean the State Transmission Utility notified by respective State Government under Sub-section (1) of Section 39 of the Act.

**"Tariff"** shall have the meaning set forth in Article 5.

**“Tariff Invoices”** shall have the meaning set forth in Article 6.

**“Technical Limits”** means the limits and constraints described in Schedule 2, relating to the operations, maintenance and despatch of the Project.

**“Term”** means the term of the Agreement as defined in Article 10.

**“Unit”** means one set of Solar Photovoltaic Grid Interactive power plant and auxiliary equipment and facilities forming part of the Project.

**“Voltage of Delivery”** means the voltage at which the Electricity generated by the Project is required to be delivered and shall be 11 / 22 kV.

## **2. Interpretation:**

- a) Unless otherwise stated, all references made in this Agreement to "Articles" and "Schedules" shall refer, respectively, to Articles of, and Schedules to, this Agreement. The Schedules to this Agreement form part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement.
  
- b) In this Agreement, unless the context otherwise requires (i) the singular shall include plural and vice versa; (ii) words denoting persons shall include partnerships, firms, companies and MSEDCL (iii) the words "include" and "including" are to be construed without limitation and (iv) a reference to any Party includes that Party's successors and permitted assigns.

## **Article 2: LICENCES, PERMITS**

The Solar Power Producer, at its sole cost and expense, shall acquire and maintain in effect all clearances, consents, permits, licenses and approvals required from time to time by all regulatory / statutory competent authority (ies) in order to enable it to perform its obligations under the Agreement.

## **Article 3: OBLIGATIONS**

### **3.1. Obligations of the Solar Power Producer:**

- i) The Solar Power Producer shall obtain all statutory approvals, clearances and permits necessary for the Project at his cost in addition to those Approvals as listed in Schedule 3.
- ii) The Solar Power Producer shall obtain financial closure within Six (6) months from effective date.
- iii) The Solar Power Producer shall construct, operate and maintain the Project during the term of PPA at his cost and risk including the required Interconnection Facilities and in close co-ordination with STU/MSEDCL's feasibility.
- iv) The Solar Power Producer shall sell all available capacity from identified Solar Photovoltaic Grid-Interactive Power Plants to the extent of contracted capacity on first priority basis to MSEDCL and not to sell to any third party.
- v) The Solar Power Producer shall seek approval of MSEDCL in respect of interconnection Facilities.
- vi) The Solar Power Producer shall undertake at its own cost construction/ up gradation of (a) the Interconnection Facilities, (b) the Transmission Lines and as per the specifications and requirements of MSEDCL, as notified to the Solar Power Producer at schedule 4.
- vii) The Solar Power Producer shall undertake at its own cost maintenance of the Interconnection Facilities as per the specifications and requirements of STU / MSEDCL, as notified to the Solar Power Producer, in accordance with Prudent Utility Practices.
- viii) The Solar Power Producer shall operate and maintain the Project in accordance with Prudent Utility Practices.
- ix) The Solar Power Producer shall be responsible for all payments on account of any taxes, cesses, duties or levies imposed by the GoI/State Government or its competent statutory authority on the land, equipment, material or works of the Project or on the Electricity generated or consumed by the Project or by itself or on the income or assets owned by it.
- x) For evacuation facility and maintenance of the transmission, the Solar Power Producer shall enter into separate agreement with STU/MSEDCL, if applicable.
- xi) To apply for start up power required for the plant from MSEDCL.
- xii) Fulfilling all other obligations undertaken by him under this Agreement.
- xiii) The Solar Power Producer cannot inject power three months earlier to Scheduled Commercial Operation Date from Project / Unit without MSEDCL's consent.

### **3.2. Obligations of MSEDCL**

- 3.2.1. MSEDCL shall off-take and purchase the electricity generated by Solar Power Producer as per the terms and conditions of this Agreement.
- 3.2.2. MSEDCL to open the Letter of Credit as per terms and conditions of this agreement.

### **3.3. Liquidated damages for delay in Commissioning the Project/Solar Photovoltaic Grid Interactive Power Plant beyond Scheduled Commercial Operation Date:**

- 3.3.1. The Projects shall be commissioned within a period of 12 (Twelve) months from the effective date.
- 3.3.2. The Solar Power Producer shall have to submit Commissioning Certificate as verified, inspected and certified by SLDC/MSEDCL. In case of failure to achieve this milestone, MSEDCL shall forfeit the Performance Bank Guarantee (PBG) in the following manner:
  - a) **Delay upto Two (2) months from SCOD** – MSEDCL will forfeit Performance Bank Guarantee on per day basis and proportionate to the balance capacity not commissioned.
  - b) In case the commissioning of the project is delayed beyond **Two (2) months from SCOD**, MSEDCL will forfeit total PBG and the PPA capacity shall stand reduced / amended to the Project Capacity Commissioned at the end of 14<sup>th</sup> month from the effective date.

In case of delays of plant commissioning due to reasons beyond the control of the Solar Power Producer, MSEDCL after having been satisfied with documentary evidences produced by the Solar Power Producer for the purpose, can extend the time for commissioning date without any financial implications to the Solar Power Producer.

## **Article 4: SYNCHRONISATION, COMMISSIONING AND COMMERCIAL OPERATION**

### **4.1. Synchronization, Commissioning and Commercial Operation:**

- 4.1.1** The Solar Power Producer shall give at least Thirty (30) days written notice to the SLDC/MSEDCL, of the date on which it intends to synchronize the Power Project to the Grid System.
- 4.1.2** Subject to Article 4.1.1, the Power Project may be synchronized by the Solar Power Producer to the Grid System when it meets all the connection conditions prescribed in the Grid Code and otherwise meets all other Indian legal requirements for synchronization to the Grid System.
- 4.1.3** The synchronization equipment and all necessary arrangements/ equipment including Remote Terminal Unit (RTU) for scheduling of power generated from the Project and transmission of data to the concerned authority as per applicable regulation shall be installed by the Solar Power Producer at its generation facility of the Power Project at its own cost. The Solar Power Producer shall synchronize its system with the Grid System only after the approval of SLDC or MSEDCL.
- 4.1.4** The Solar Power Producer shall immediately after each synchronization / tripping of Solar Power Producer, inform the sub-station of the Grid System to which the Power Project is electrically connected in accordance with applicable Grid Code.
- 4.1.5** The Projects shall be commissioned within a period of 12 (Twelve) months from the effective date.
- 4.1.6** The part commissioning of the project may be accepted by MSEDCL subject to the condition that minimum capacity for acceptance of first part commissioning shall be 1 MW.
- 4.1.7** The early commissioning of solar power project is permitted for full commissioning as well as part commissioning before SCOD. In case of early full commissioning, MSEDCL will purchase the generation till SCOD at PPA tariff. In case of early part commissioning till SCOD as described in Section 4.1.6 above, MSEDCL will purchase the generation till SCOD at 75% of PPA tariff. In case of commissioning of project delayed beyond SCOD, MSEDCL will purchase the generation for the period from Scheduled COD to Commercial Operation Date at 75% of PPA tariff. If the project is not fully commissioned within the maximum time period allowed for commissioning of the full Project Capacity, then the last date of such maximum time period shall be considered as COD.
- 4.1.8** Power producer shall execute the bipartite sub-lease agreement with the MSEDCL as per the RfS clause No. 3.3.3 and this executed bipartite rent

agreement shall be submitted at the time of financial closure and shall be the part of this PPA.

- 4.1.9** Being the implementing agency, MSEDCL's role w.r.to land is to acquire possession of government lands and hand it over to successful bidder. MSEDCL won't carry out any technical evaluation nor incur any expense on development of these lands.

**4.2. Performance Bank Guarantee:**

- 4.2.1** The Performance Bank Guarantee furnished by Solar Power Producer to MSEDCL as prescribed in the RfS shall be for guaranteeing the commissioning / commercial operation of the project / unit up to the Contracted Capacity within SCOD.
- 4.2.2** If the Power Producer fails to commission the project / Unit on or before Scheduled Commercial Operation Date, MSEDCL shall have the right to forfeit the Performance Bank Guarantee without prejudice to the other rights of the Solar Power Producer under this Agreement as per Article 3.3.
- 4.2.3** MSEDCL shall release the Performance Bank Guarantee upon successful commissioning of full contracted capacity after adjusting Liquidated Damages (if any) as per Article 3.3.

**4.3. Despatch and Scheduling:**

- 4.3.1** The Solar Power Producer shall be required to Schedule its power as per the applicable regulations / requirements / guidelines of MERC and maintain compliance to the Grid Code requirements and directions, as specified by SLDC from time to time. Any deviation from the Schedule will attract the provisions of applicable regulation / guidelines / directions and any financial implication on account of this shall be to the account of the Solar Power Producer.
- 4.3.2** Solar Power Producer shall be responsible for deviations made by it from the despatch schedule and for any resultant liabilities on account of charges for deviation as per applicable regulations.



## Article 5: RATES AND CHARGES

- 5.1. Monthly Energy Charges:** The MSEDCL shall pay for the Delivered Energy as certified by SLDC/ MSEDCL / Appropriate authority through SEA/Joint Meter Reading (AMR/MRI), for the Term of this Agreement from the Commercial Operation Date, to the Solar Power Producer every month. The Tariff payable by MSEDCL for energy purchased shall be as per Article below.
- 5.2.** MSEDCL shall pay a **fixed rate of INR ..... (in words Rupees ----) per kWh** as discovered under the Competitive Bidding and as agreed by the Parties upon commissioning of a Unit / Project (as certified by SLDC/MSEDCL) for delivered energy during the period of PPA.
- 5.3.** In case the commissioning of the project (Full/part) is delayed beyond SCOD, MSEDCL shall pay at 75% of the tariff discovered under the Competitive Bidding (followed by reverse auction) till achievement of COD.
- 5.4. Start-up power/Auxiliary consumption:**  
MSEDCL shall supply electricity to the Power Producer at the MSEDCL's prevailing HT Industrial Tariff rate in force from time to time and Solar Power Producer shall pay for this electricity at applicable tariff.
- 5.5. Capacity Utilisation Factor (CUF):**

### **5.5.1 Criteria for generation:**

The Solar Power Producer has declared the CUF of their project as \_\_\_\_\_% and It will be allowed to revise the same once within first year of COD. The declared CUF shall in no case be less than 19% over a year. Solar Power Producer shall maintain generation so as to achieve CUF in the range of  $\pm 10$  % of their declared value during the entire PPA duration of 25 years from the Commercial Operation Date of proposed / new solar power projects. The lower limit will, however, be relaxed by MSEDCL to the extent of grid non-availability for evacuation which is beyond the control of the Solar Power Producer.

### **5.5.2 Shortfall in minimum generation:**

During the PPA term, if for any contract year, it is found that the producer has not been able to generate minimum energy corresponding to the lower limit of CUF declared by the producer, such shortfall in performance shall make Producer liable to pay the compensation at 25% (twenty-five per cent) of the cost of this shortfall in energy terms,

calculated at PPA tariff payable to MSEDCL. This compensation shall be applied to the amount of shortfall in generation during the year. This will, however be relaxable by MSEDCL to the extent of grid non-availability for evacuation, which is beyond the control of the producer. Further, this compensation shall not be applicable in events of Force Majeure identified under PPA affecting supply of solar power by Solar Power Producer /power producer.

### **5.5.3 Excess generation:**

In case the availability is more than the maximum CUF i.e over and above 10% of declared CUF by Solar Power Producer, the Solar Power Producer will be free to sell it to any other entity, however first right of refusal will vest with the Procurer. In case the Procurer purchases the excess generation, excess generation over and above 10% of declared annual CUF, the same may be done at 75% of the PPA tariff. MSEDCL shall inform the Solar Power Producer for procurement of excess power within 15 days of receiving a written intimation from the Solar power Producer for such excess generation. If in case MSEDCL fails to reply to the Solar Power Producer within the above stipulated time period then the Producer shall be free to sell it to any other entity.

### **5.5.4 Repowering:**

The Solar Power Producer shall be allowed a maximum cumulative period of six (6) months for repowering during the entire PPA term of 25 years. The Producer shall not be in default for non-supply of power during this period of repowering. However, the Procurer will be obliged to buy power only within the range of CUF, specified in the PPA. Any excess generation will be dealt as specified in Article 5.5.3 of this PPA.

## **5.6. DC Oversizing:**

The DC oversizing shall be commercial decision of bidder to optimize his solar project. However for the purpose of compensation towards change in law, if any, the DC installed capacity shall be considered as the formula as follows or actual installed DC capacity whichever is lower.

DC Capacity for Change in Law = AC Contracted Capacity x ( Declared CUF / Minimum CUF stipulated in RFS)

## **5.7. Generation Compensation in offtake constraint due to transmission/Distribution network:**

In any given year during the contract, if the availability of the distribution line/transmission line after inter-connection point for evacuation of power (during 8 am to 6 pm) falls below 98% i.e. the line unavailability is more than 2% i.e. 175.20 hours (2% x 365 days x 24 hours), and the power is not evacuated, for reasons not attributable to the Solar Power Producer, then the generation loss shall be compensated by MSEDCL at the 75% PPA tariff so as to offset this loss as given below

<b>Duration of Grid unavailability</b>	<b>Provision for Generation Compensation</b>
Grid unavailability in a contract year as defined in the PPA: (only period from 8 am to 6 pm to be counted):	<p>Generation Loss = [(Average Generation per hour during the contract year) × (number of hours of grid unavailability beyond 175.20 hours i.e. 2% during the contract year)]</p> <p>Where, Average Generation per hour during the contract year (kWh) = Total generation in the contract year (kWh) ÷ Total hours of generation in the contract year Producer</p>

### 5.8. Generation compensation due to Backed Down:

The solar power producer shall follow the forecasting and scheduling process as per applicable CERC/MERC regulations as amended from time to time.

The Government of India, as per Clause 5.2(u) of the Indian Electricity Grid Code (IEGC), encourages a status of “must-run” to solar power projects. Accordingly, no solar power plant, duly commissioned, should be directed to back down by a MSEDCL/SLDC. In case such eventuality of Backdown arises, except for the cases where the back down is on account of events like consideration of grid security/ an emergency in STU’s / MSEDCL’s evacuation system for safe operation of its Grid or safety of any personnel or the other such condition, the Solar Power Producer shall suitably back down their generation.

In case of backing down situation, the Solar Power Producer will be eligible for Minimum Generation Compensation from Procurer/MSEDCL after receipt of State Energy Account or any other relevant documents certified by MSEDCL/SLDC as under:

<b>Duration of Back down</b>	<b>Minimum Generation Compensation</b>
Hours of backdown during monthly billing cycle	<p>Minimum Generation Compensation =100% of (Average Generation per hour during the month) x (number of backdown hours during the month) x PPA tariff.</p> <p>Where, Average Generation per hour during the month(kWh) = Total generation in the month(kwh)/Total hours of generation in the month</p>

The Generation Compensation is to be paid as part of the energy bill for the successive month after receipt of State Energy Accounts (SEA) or any other relevant documents certified by MSEDCL/SLDC.

It is clarified that Article 5.7 shall not be applicable, if in future, Merit Order Despatch is made applicable to generation from renewable sources; from Solar power project in this case.

## Article 6: BILLING AND PAYMENT

### 6.1. Billing Provision:

The Billing shall be on monthly basis. MSEDCL will be billed by the Solar Power Producer based on Meter reading (MRI /AMR) //SEA as certified by Maharashtra SLDC or MSEDCL authority as may be applicable following the end of each month for the energy supplied and payment shall be due on the thirtieth day following the delivery of the billing invoice.

The Solar Power Producer would raise bills (online) for the power supplied during the month by the 10<sup>th</sup> day of the following month.

The Solar Power Producer shall open a bank account ("Solar Power Producer's Designated Account"), and shall notify MSEDCL as per the format enclosed with this PPA as Schedule 5, for all Tariff Payments be made by the Procurer to the Solar Power Producer, and notify the Procurer of the details of such account at least thirty (30) Days before the despatch of the first Monthly Bill. The Procurer shall also designate a bank account (the "Procurer's Designated Account") for payments to be made by the Solar Power Producer to the Procurer, if any, and notify the Solar Power Producer of the details of such account thirty (30) days before the despatch of the first Monthly Bill. The Solar Power Producer and the Procurer shall instruct their respective bankers to make all payments under this Agreement to the Procurer's Designated Account or the Solar Power Producer's Designated Account, as the case may be, and shall notify either Party of such instructions on the same day.

### Payment:

MSEDCL shall make payment of the amounts due in Indian Rupees within thirty (30) days from the date of receipt of the Tariff Invoice by the designated office of the MSEDCL.

### 6.2. Late Payment:

In regards to the payments against the Monthly bill, if paid beyond the 30 (Thirty) days of its due date, a late Payment charge shall be payable by MSEDCL to the Solar Power Producer at the rate of 1.25% (percent) in excess of the SBI, 1 year Marginal Cost of Funds Based Lending Rate (MCLR) per annum / any replacement thereof by SBI.

Provided that in case of unavailability of the above mentioned MCLR rates or the replacement thereof, the rates for calculations of Late payment charges shall be decided by mutual agreement of MSEDCL and the Solar Power Producer.

### **6.3. Rebate:**

For payment of any Bill on or before Due Date, the following Rebate shall be paid by the solar power Producer to MSEDCL in the following manner.

- (a) A rebate of 1% shall be payable to MSEDCL for the payments made within a period of 15 days of the presentation of Tariff Invoice by modes as mentioned in Article 6.1 along with required supporting documents at MSEDCL office. No rebate shall be applicable for payment beyond 15 days of the presentation of Tariff Invoice.
- (b) For the above purpose, the date of presentation of Bill shall be the next Business Day of delivery of the Tariff Invoice at MSEDCL.
- (c) No rebate shall be payable on the Bills raised on account of taxes, duties, cess etc.

### **6.4. Payment Security:**

#### **6.4.1. Letter of Credit:**

- a) MSEDCL shall establish and maintain irrevocable and unconditional revolving Letter of Credit in favour of, and for the sole benefit of, the Solar Power Producer for the contacted capacity. All the cost incurred for opening, maintenance and other cost related to establishment of Letter of Credit shall be borne by the MSEDCL.
- b) The Letter of Credit shall be established in favour of, and issued to, the Solar Power Producer on the date hereof and made operational thirty (30) days prior to due date of first invoice and shall be maintained consistent herewith by MSEDCL and all times during the Term of the Agreement.
- c) Such Letter of Credit shall be in form and substance acceptable to both the Parties and shall be issued by any Nationalized or Scheduled Bank and be provided on the basis that:
  - i. In the event a Tariff Invoice or any other amount due and undisputed amount payable by MSEDCL pursuant to the terms of this Agreement is not paid in full by MSEDCL as and when due, the Letter of Credit may be called by the Solar Power Producer for payment of undisputed amount.
  - ii. The amount of the Letter of Credit shall be equal to one month's projected payments during first contract year and thereafter during each contract year, the amount of Letter of Credit shall be equal to one month's average billing of previous contract year.

- iii. The MSEDCL shall replenish the Letter of Credit to bring it to the original amount within 30 days in case of any valid drawdown.
- d) The Letter of Credit shall be renewed and/or replaced by the MSEDCL not less than 30 days prior to its expiration.
- e) Payment under the Letter of Credit: The drawl under the Letter of Credit in respect of a Tariff Invoice (excluding supplementary bills) shall require:
  - i. a copy of the metering statement jointly signed by the official representatives of both the Parties, supporting the payments attributable to the Delivered Energy in respect of such Tariff Invoice.
  - ii. a certificate from the Solar Power Producer stating that the amount payable by MSEDCL in respect of such Tariff Invoice has not been paid and disputed by MSEDCL till the Due Date of Payment of the Tariff Invoice.

**Payment Security Fund** –The Payment Security Fund shall be suitable to support payment for at least 3 (three) months’ billing of all the Projects tied up with such fund.

#### **6.5. Disputes:**

In the event of a dispute as to the amount of any Tariff Invoice, resolution process as described in Article 11 shall be followed.

## **Article 7: METERING AND COMMUNICATION**

### **7.1. Reading and Correction of Meters**

- 7.1.1.** The metering point shall be at 11 / 22 kV level substation of MSEDCL.
- 7.1.2.** For the purpose of energy accounting, the ABT compliant meter with Automated Meter Reading (AMR) feature shall be installed by Solar Power Producer at the metering point. Further, Solar Power Producer shall have to provide ABT Compliant Meters.
- 7.1.3.** Interface metering shall conform to the Central Electricity Authority (Installation and Operation of Meters) Regulations 2014 and amendment thereto. STU/MSEDCL shall stipulate specifications in this regard.
- 7.1.4.** The Solar Power Producer shall bear all costs pertaining to installation, testing, calibration, maintenance, renewal and repair of meters at Delivery Point.
- 7.1.5.** The ABT metering equipment consisting of Main and Check Meters with separate CT and PT shall be identical in make, technical standards and of 0.2s accuracy class and calibration and comply with the requirements of Electricity Rules.
- 7.1.6.** The meters installed at the Metering Point shall have four quadrant, three phase, four wires and provision for on line/automatic reading and time slots as required by purchaser and SLDC.
- 7.1.7.** The Solar Power Producer shall also establish backup metering system/check meter.
- 7.1.8.** In the event that the Main Metering System is not in service as a result of maintenance, repairs or testing, then the Backup Metering System/Check Meter shall be used during the period the Main Metering System is not in service and the provisions above shall apply to the reading of the Backup Metering System.

### **7.2. Testing of the metering equipment (wherever applicable):**

- 7.2.1.** The Main and Check Meters shall be tested for accuracy, with a portable standard meter, by the National accredited Labs and sealed by MSEDCL at its own cost. MSEDCL shall carry out the calibration, periodical testing, sealing and maintenance of meters in the presence of the authorized representative(s) of the Solar Power Producer and the representative of the Solar Power Producer shall sign on the results thereof.
- 7.2.2.** The frequency of meter testing shall be annual. All the meters will be tested only at the Metering Point. Purchaser will provide a copy of the test reports to Solar Power Producer .
- 7.2.3.** If during testing, both the Main and Check Meter are found within the permissible limit of error i.e. 0.2%, the energy computation will be as per the Main Meter. If

during test, any of the Main Meters is found to be within the permissible limits of error but the corresponding Check Meter is beyond the permissible limit; the energy computation will be as per the Main Meter. The Check Meter shall be calibrated immediately.

**7.2.4.** If during the tests, any of the Main Meters is found to be beyond permissible limits of error, but the corresponding Check Meters is found to be within the permissible limits of error, then the energy computation for the month upto date and time of such test check shall be in accordance with Check Meter. The Main Meter shall be calibrated immediately and the energy for the period thereafter shall be as per the calibrated Main Meter.

**7.2.5.** If during any of the monthly meter readings, the variation between the Main meter and the Check meter is more than 0.5%, all the meters shall be re-tested and calibrated at the Solar Power Producer's cost immediately by Purchaser. During this period energy recorded with SCADA shall be used for billing & payment purposes.

**7.2.6.** For all times the reading of the Main meter only will be considered except in rarest conditions such as maintenance, repairs, testing or discrepancy in meter reading with compare to check meters then the Check meter reading may be considered.

### **7.3. Sealing and Maintenance of Meters.**

- i. The Main Metering System and the Backup Metering System shall be sealed in the presence of representatives of Solar Power Producer and MSEDCL.
- ii. When the Main Metering System and / or Backup Metering System/Check Metering System and / or any component thereof is found to be outside the acceptable limits of accuracy or otherwise not functioning properly, it shall be repaired, re-calibrated or replaced by the Solar Power Producer or MSEDCL at Solar Power Producer's cost, as soon as possible.
- iii. Any meter seal(s) shall be broken only by MSEDCL's representative in the presence of Solar Power Producer's representative whenever the Main Metering System or the Backup Metering System is to be inspected, tested, adjusted, repaired or replaced.
- iv. All the Main and Check Meters shall be calibrated at least once in a period of one year.
- v. In case, both the Main Meter and Check Meter are found to be beyond permissible limit of error, both the meters shall be calibrated immediately and the correction applicable to main meter shall be applied to the energy registered by the Main Meter at the correct energy for the purpose of energy accounting / billing for the actual period during which inaccurate measurements were made, if such period can be determined or, if not readily determinable, shall be the shorter of:



- a) the period since immediately preceding test of the relevant Main meter, or
- b) one hundred and eighty (180) days immediately preceding the test at which the relevant Main Meter was determined to be defective or inaccurate.

#### **7.4. Records**

Each Party shall keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this Agreement and the operation of the Power Plant. Among such other records and data, the Solar Power Producer shall maintain an accurate and up-to-date operating log at the Power Plant with records of:-

- a) Fifteen (15) minutes logs of real and reactive power generation, frequency, transformer tap position, bus voltage(s), Main Meter and Back up Meter Readings and any other data mutually agreed;
- b) any unusual conditions found during operation / inspections;
- c) chart and printout of event loggers, if any, for system disturbances/ outages;
- d) All the records will be preserved for a period of 36 months.

## **Article 8: FORCE MAJEURE**

### **8.1. Force Majeure Events:**

- a) Neither Party shall be responsible or liable for or deemed to be in breach hereof because of any delay or failure in the performance of its obligations hereunder (except for obligations to pay money due prior to occurrence of Force Majeure events under this Agreement) or failure to meet milestone dates due to any event or circumstance (a "Force Majeure Event") beyond the reasonable control of the Party experiencing such delay or failure, including the occurrence of any of the following:
- b) Definition of Force Majeure: A 'Force Majeure' (FM) would mean one or more of the following acts, events or circumstances or a combination of acts, events or circumstances or the consequence(s) thereof, that wholly or partly prevents or unavoidably delays the performance by the Party of its obligations under the relevant Power Purchase 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 or complied with Prudent Utility Practices.

### **8.2. Categorisation of Force Majeure Events:**

#### **8.2.1 Natural Force Majeure Event**

- a) Act of God, including, but not limited to lightning, drought, fire and explosion (to the extent originating from a source external to the site), earthquake, volcanic eruption, landslide, flood, cyclone, typhoon or tornado if it is declared / notified by the competent state / central authority / agency (as applicable), or verified to the satisfaction of Procurer;
- b) 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;
- c) the discovery of geological conditions, toxic contamination or archaeological remains on the Project land that could not reasonably have been expected to be discovered through an inspection of the Project land; or
- d) any event or circumstances of a nature analogous to any of the foregoing.

#### **8.2.2 Non-Natural Force Majeure Event.**

- a) 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;
- b) nation/state-wide strike, lockout, boycotts or other industrial disputes which are

not directly and solely attributable to the actions of the Affected Party, but does not include strike or labour unrest limited to the Affected Party or its contractors;

c) nationalisation or any compulsory acquisition by any Indian Governmental Instrumentality/ State Government in national interest or expropriation of any material Project assets or rights of the Solar Power Producer , as a result of which the Solar Power Producer or its shareholders are deprived (wholly or partly) of their rights or entitlements under the Power Purchase Agreement. Provided that such action does not constitute remedies or sanctions lawfully exercised by the Procurer or any other Government Authority as a result of any breach of any of the Applicable Laws or the Applicable Permits by the Solar Power Producer or the Solar Power Producer related parties;

d) action of a Government Authority having Material Adverse Effect including but not limited to change in law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Article 9 of this PPA; any unlawful or unauthorised or without jurisdiction revocation of, or delay in, or refusal, or failure to renew or grant without valid cause, any Permits of the Solar Power Producer or any of the clearance, licence, authorization to be obtained by the Contractors to perform their respective obligations under the relevant PPA and/or the Project Documents; provided that such delay, modification, denial, refusal or revocation did not result from the Solar Power Producer 's or any Contractors inability or failure to comply with any condition relating to grant, maintenance or renewal of such Permits or clearance, licence, authorization, as the case may be.

### **8.3. Force Majeure Exclusions:**

**8.3.1** 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) Unavailability, late delivery, or changes in cost of the plant, machinery, equipment, materials, spare parts or consumables for the Power Project;
- b) Delay in the performance of any contractor, sub-contractor or their agents;
- c) Non-performance resulting from normal wear and tear typically experienced in power generation materials and equipment;
- d) Strikes at the facilities of the Affected Party;
- e) Insufficiency of finances or funds or the agreement becoming onerous to perform; and
- f) 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

#### **8.4. Notification of Force Majeure Event**

- 8.4.1 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.
- 8.4.2 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.
- 8.4.3. Provided that such notice shall be a pre-condition to the Affected Party's entitlement to claim relief under the PPA. 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 weekly) reports on the progress of those remedial measures and such other information as the other Party may reasonably request about the Force Majeure Event.
- 8.4.3 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 the PPA, as soon as practicable after becoming aware of each of these cessations
- 8.4.4 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 the PPA, as soon as practicable after becoming aware of each of these cessations.

#### **8.5. Performance Excused.**

- 8.5.1 The Affected Party, to the extent rendered unable to perform its obligations or part of the obligation thereof under the PPA as a consequence of the Force Majeure Event, shall be excused from performance of the obligations, provided that the period shall not exceed 180 (one hundred and eighty) Days from the date of issuance of the FM Notice. The Parties may mutually agree to extend the period for which performance is excused due to a Force Majeure Event.
- 8.5.2 For the time period, as mutually agreed by the Parties, during which the performance shall be excused, the Solar Power Producer shall be entitled for a day to day extension of the period provided for Financial Closure or Scheduled Commissioning Period or the PPA period, as the case may be.

8.5.3 Provided always that a Party shall be excused from performance only to the extent reasonably warranted by the Force Majeure Event.

8.5.4 Provided further that, nothing shall absolve the Affected Party from any payment obligations accrued prior to the occurrence of the underlying Force Majeure Event.

**8.6. No Liability for Other Losses.**

Save as otherwise provided in these Guidelines, no Party shall be liable in any manner, whatsoever, to the other Parties in respect of any Loss relating to or arising out of the occurrence or existence of any Force Majeure Event.

**8.7. Resumption of Performance:**

During the period that a Force Majeure Event is subsisting, the Affected Party shall, in consultation with the other Parties, make all reasonable efforts to limit or mitigate the effects of such Force Majeure Event on the performance of its obligations under the PPA. The Affected Party shall also make efforts to resume performance of its obligations under this Agreement as soon as possible and upon resumption, shall notify other Parties of the same in writing. The other Parties shall afford all reasonable assistance to the Affected Party in this regard.

**8.8. Termination Due to Force Majeure Event**

**8.8.1 Termination due to Natural Force Majeure Event**

a) If, prior to the completion of the 180 (one hundred and eighty) Day period (or any extended period) for a Natural Force Majeure Event commencing from the date of issuance of the Force Majeure Notice, the Parties are of the reasonable view that a Natural Force Majeure Event is likely to continue beyond such 180 (one hundred and eighty) Day period or any extended period agreed in pursuance of Article 8.5 (Performance Excused); or that it is uneconomic or impractical to restore the affected Unit, then the Parties may mutually decide to terminate the PPA, and the termination shall take effect from the date on which such decision is taken.

b) Without prejudice to the provisions of Article 8.8.1(a) above, the Affected Party shall, after the expiry of the period of 180 (one hundred and eighty) Days or any other mutually extended period, be entitled to forthwith terminate the PPA in its sole discretion by issuing a notice to that effect.

c) On termination of the PPA pursuant to Article 8.8.1(b):

(i) no Termination Compensation shall be payable to the Solar Power Producer .

(ii) the Solar Power Producer shall be eligible for undisputed payments under outstanding Monthly Bill(s), before the occurrence of Force Majeure Event.

### **8.8.2 Termination due to Non-Natural Force Majeure Event**

a) Upon occurrence of a Non-Natural Force Majeure Event, the Solar Power Producer shall, at its discretion, have the right to terminate the PPA forthwith after the completion of the period of 180 (one hundred and eighty) Days from the date of the Force Majeure Notice.

b) Notwithstanding anything in Article 8.6, on termination of the PPA pursuant to Article 8.8.2(a):

(i) the Procurer shall pay to the Solar Power Producer, 'Force Majeure Termination Compensation' equivalent to the amount of the Debt Due and the 110% (one hundred and ten per cent) of the Adjusted Equity, as defined in the Article 10.3.4 of this PPA and takeover the Project assets.

(ii) the Solar Power Producer shall be eligible for undisputed payments under outstanding Monthly Bill(s), before the occurrence of Force Majeure Event.”

### **8.9. Available Relief for a Force Majeure Event:**

8.9.1 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. However, adjustment in tariff shall not be allowed on account of Force Majeure event.

8.9.2 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.

8.9.3 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 Events.

# Article 9: CHANGE IN LAW

## 9.1 Definitions

In this Article 9, the following terms shall have the following meanings:

**"Change in Law"** shall refer to the occurrence of any of the following events after the last date of the bid submission, including:

- (i) the enactment of any new law; or
- (ii) an amendment, modification or repeal of an existing law; or
- (iii) the requirement to obtain a new consent, permit or license; or
- (iv) any modification to the prevailing conditions prescribed for obtaining an consent, permit or license, not owing to any default of the Solar Power Producer; or
- (v) any change in the rates of any Taxes, Duties and Cess which have a direct effect on the Project.

However, Change in Law shall not include any change in taxes on corporate income or any change in any withholding tax on income or dividends

. The imposition of Basic Custom Duty (BCD) shall not be considered as change-in-law, in any case.

## 9.2. Relief for Change in Law

- 9.2.1. In the event a Change in Law results in any adverse financial loss/ gain to the Solar Power Producer then, in order to ensure that the Solar Power Producer is placed in the same financial position as it would have been had it not been for the occurrence of the Change in Law, the Solar Power Producer/ Procurer shall be entitled to compensation by the other party, as the case may be, subject to the condition that the quantum and mechanism of compensation payment shall be determined and shall be effective from such date as may be decided by the MERC.
- 9.2.2. If a Change in Law results in the Solar Power Producer's costs directly attributable to the Project being decreased or increased by one percent (1%), of the estimated revenue from the Electricity for the Contract Year for which such adjustment becomes applicable or more, during Operation Period, the Tariff Payment to the Solar Power Producer shall be appropriately increased or decreased with due approval of MERC.
- 9.2.3. In case of approval of Change in Law by MERC and the same results in any increase or decrease in the cost of generation, the said increase/decrease in cost shall be passed on in tariff in the following manner:

9.2.4. Formula to calculate adjustment in the monthly tariff due to the impact of Change in Law,

Allowable Change in Law Compensation (P) = Actual per MW variation in expenses on account of Change in Law event x Allowable DC capacity for Change in Law compensation;

Then, the modification in PPA tariff (M.T.) for compensating the financial impact is given by  $M.T. = Y/X$

Where  $X =$  estimated monthly electricity generation (in kWh) =  $(1/12) X$  [contracted capacity of the RE power plant as per PPA (in MW) x Annual CUF declared in PPA (in %) x 8760 hour x 10];

and  $Y = [(PxMr)\{(1+Mr)^n\}] \div [\{(1+Mr)^n\}-1]$

where,

$n =$  no. of months over which the financial impact has to be paid; and

$Mr =$  monthly rate of interest =; where  $R =$  annual rate of interest equal to 125 basis points above the average State Bank of India Marginal Cost of Funds based leading rate (MCLR of one year tenor) prevalent during the last available six months for such period.

Further, the M.T. shall be tried up annually based on actual generation of the year so as to ensure that the payment to the Solar Power Producer is capped at the yearly Change in Law amount.

9.2.5. The Power Procurer / MSEDCL or the Solar Power Producer, as the case may be, shall provide the other Party with a certificate stating that the adjustment in the Tariff Payment is directly as a result of the Change in Law and shall provide supporting documents to substantiate the same and such certificate shall correctly reflect the increase or decrease in costs.

9.2.6. The revised tariff shall be effective from the date of such Change in Law as approved by MERC, the Parties hereto have caused this Agreement to be executed by their fully authorized officers, and copies delivered to each Party, as of the day and year first above stated.

9.2.7. For the excess amount to be recovered against the approved change in Law events, shall not attract any carrying costs or any other interest on such amount.

### **9.3. Notification of Change in Law**

9.3.1. If the Solar Power Producer is affected by a Change in Law in accordance with Article 9.1 and wishes to claim change in Law under this Article, it shall give notice to MSEDCL of such Change in Law within 7 days after becoming aware of the



same or should reasonably have known of the Change in Law.

9.3.2. Notwithstanding Article 9.3.1, the Solar Power Producer shall be obliged to serve a notice to MSEDCL if it is beneficially affected by a Change in Law. Without prejudice to the factor of materiality or other provisions contained in this Agreement, the obligation to inform the Procurer contained herein shall be material. Provided that in case MSEDCL has not provided such notice, the Solar Power Producer shall have the right to issue such notice to MSEDCL.

9.3.3. Any notice served pursuant to this Article 9.3.2 shall provide, amongst other thing, precise details of:

a) The Change in Law: and

b) The effect on MSEDCL of the matters referred to in Article 9.2

# **Article 10: TERM, TERMINATION AND DEFAULT**

## **10.1. Term of the Agreement:**

This Agreement shall become effective upon the execution and delivery thereof by the Parties hereto and unless terminated pursuant to other provisions of the Agreement, shall continue to be in force for such time until the completion of a period of 25 years from the Commercial Operation Date of proposed / new solar power projects. This Agreement may be extended for a further period on mutually agreed terms and conditions at least one hundred eighty (180) days prior to the Expiry Date.

## **10.2. Survival:**

The expiry or termination of this Agreement shall not affect any accrued rights, obligations and liabilities of the Parties under this Agreement, including the right to receive penalty as per the terms of this Agreement, nor shall it affect the survival of any continuing obligations for which this Agreement provides, either expressly or by necessary implication, which are to survive after the Expiry Date or termination including those under Article 8 (Force Majeure), Article 10 (Events of Default and Termination), Article 11 (Dispute Resolution), Article 12 (Indemnity), Article 13 (Miscellaneous Provisions), and other Articles and Schedules of this Agreement which expressly or by their nature survive the Term or termination of this Agreement shall continue and survive any expiry or termination of this Agreement

## **10.3. Events of Default and the consequences thereof:**

### **10.3.1. Solar Power Producer's Default:**

The occurrence of any of the following events at any time during the Term of this Agreement shall constitute an Event of Default by Solar Power Producer:

- a) Failure to commission the project by scheduled commercial operation date or fails to supply power in terms of the PPA, or assigns or novates any of its rights or obligations contrary to the terms of the PPA or repudiates the PPA, or effectuates a change in control or shareholding of its promoters in breach of the provisions of the PPA, or commits any other acts or omissions as laid down in the PPA and is also unable to cure any of the aforesaid within the cure period, as may be provided in the PPA, the Solar Power Producer shall be construed to be in default.
- b) O&M Default on part of Solar Power Producer.
- c) Failure or refusal by Solar Power Producer to perform any of its material

- obligations under this Agreement including but not limited to financial closure.
- d) Solar Power Producer fails to make any payment required to be made to Power Procurer under this agreement within three (3) months after the due date of a valid invoice raised by MSEDCL on the Solar Power Producer.
  - e) If the Solar Power Producer (i) assigns or purports to assign its assets or rights in violation of this agreement; or (ii) transfers or novates any of its rights and / or obligations under this agreement, in violation of this agreement.
  - f) If the Power producer becomes voluntarily or involuntarily the subject of proceeding under any bankruptcy or insolvency laws or goes into liquidation or dissolution or has a receiver appointed over it or liquidator is appointed, pursuant to Law, except where such dissolution of the Solar Power Producer is for the purpose of a merger, consolidated or reorganization and where the resulting entity has the financial standing to perform its obligations under this Agreement and creditworthiness similar to the Solar Power Producer and expressly assumes all obligations under this agreement and is in a position to perform them; or
  - g) Occurrence of any other event which is specified in this Agreement to be a material breach / default of the Power Producer.

10.3.2. Upon being in default, the Power Producer shall be liable to pay MSEDCL, damages, as detailed in the PPA in Clause No.3.3.2 for failure to commission within stipulated time and 5.5.2 for failure to supply power in terms of the PPA. For other cases, pay to the Procurer, damages, equivalent to 6 (six) months, or balance PPA period whichever is less, of charges for its contracted capacity. The Procurer shall have the right to recover the said damages by way of forfeiture of bank guarantee without prejudice to resorting to any other legal course or remedy.

10.3.3. In addition to the levy of damages as aforesaid, in the event of a default by the Power Producer, the lenders shall be entitled to exercise their rights of substitution and in concurrence with the Procurers. However, in the event the lenders are unable to substitute the defaulting Solar Power Producer within the stipulated period, the Procurer may terminate the PPA and acquire the Project assets for an amount equivalent to 90% of the debt due, failing which, the lenders may exercise their mortgage rights and liquidate the Project assets.

**10.3.4. MSEDCL's Default:**

(a) If MSEDCL is in default on account of reasons including inter alia:

- (i) Default by MSEDCL in performing its obligation under this agreement,
- (ii) Failure to pay the monthly and / or supplementary bills beyond 90 days,

(iii) If MSEDCL becomes voluntarily or involuntarily the subject of proceeding under any bankruptcy or insolvency laws or goes into liquidation or dissolution or has a receiver appointed over it or liquidator is appointed, pursuant to Law, except where such dissolution of MSEDCL is for the purpose of a merger, consolidation or reorganization and where the resulting entity has the financial standing to perform its obligations under this Agreement and creditworthiness similar to MSEDCL and expressly assumes all obligations under this agreement and is in a position to perform them.

The defaulting Procurer shall, subject to the prior consent of the Solar Power Producer, novate its part of the PPA to any third party, including its Affiliates within the stipulated period.

(b) In the event the aforesaid novation is not acceptable to the Solar Power Producer, or if no offer of novation is made by the defaulting Procurer within the stipulated period, then the Solar Power Producer may terminate the PPA and at its discretion require the defaulting Procurer to either:

i) takeover the project assets by making a payment of the termination compensation equivalent to the amount of the debt due and the 150% (one hundred and fifty per cent) of the adjusted equity as detailed in the PPA or

ii) pay to the Solar Power Producer, damages, equivalent to 6 (six) months, or balance PPA period whichever is less, of charges for its contracted capacity, with the project assets being retained by the Solar Power Producer.

(c) In the event of termination of PPA, any damages or charges payable to the STU, for the connectivity of the plant, shall be borne by MSEDCL.

(d) Adjusted Equity means the Equity funded in Indian Rupees and adjusted on the first day of the current month (the "Reference Date"), in the manner set forth below, to reflect the change in its value on account of depreciation and variations in Wholesale Price Index (WPI), and for any Reference Date occurring between the first day of the month of Appointed Date (the date of achievement of Financial Closure) and the Reference Date.

- i. On or before Commercial Operation Date (COD), the Adjusted Equity shall be a sum equal to the Equity funded in Indian Rupees and expended on the Project, revised to the extent of one half of the variation in WPI occurring between the first day of the month of Appointed Date and Reference Date.
- ii. An amount equal to the Adjusted Equity as on COD shall be deemed to be the base (the "Base Adjusted Equity");

- iii. After COD, the Adjusted Equity hereunder shall be a sum equal to the Base Adjusted Equity, reduced by 0.333% (zero point three three three percent) thereof at the commencement of each month following the COD [reduction of 1% (one percent) per quarter of an year] and the amount so arrived at shall be revised to the extent of variation in WPI occurring between the COD and the Reference Date;

For the avoidance of doubt, the Adjusted Equity shall, in the event of termination, be computed as on the Reference Date immediately preceding the Transfer Date; provided that no reduction in the Adjusted Equity shall be made for a period equal to the duration, if any, for which the PPA period is extended, but the revision on account of WPI shall continue to be made.

(e) Debt Due means the aggregate of the following sums expressed in Indian Rupees outstanding on the Transfer Date:

- i. The principal amount of the debt provided by the Senior Lenders under the Financing Agreements for financing the Total Project Cost (the 'Principal') but excluding any part of the principal that had fallen due for repayment 2 (two) years prior to the Transfer Date;
- ii. All accrued interest, financing fees and charges payable under the Financing Agreements on, or in respect of, the debt referred to in sub-clause 10.3.4(e)(i) above until the Transfer Date but excluding: (i) any interest, fees or charges that had fallen due one year prior to the Transfer Date, (ii) any penal interest or charges payable under the Financing Agreements to any Senior Lender, (iii) any pre-payment charges in relation to accelerated repayment of debt except where such charges have arisen due to Utility Default, and (iv) any Subordinated Debt which is included in the Financial Package and disbursed by lenders for financing the Total Project Cost.

Provided that if all or any part of the Debt Due is convertible into Equity at the option of Senior Lenders and/or the Concessionaire, it shall for the purposes of this Agreement be deemed not to be Debt Due even if no such conversion has taken place and the principal thereof shall be dealt with as if such conversion had been undertaken.

Provided further that the Debt Due, on or after COD, shall in no case exceed 80% (eighty percent) of the Total Project Cost."

#### 10.4. Termination:

##### 10.4.1 Termination for Solar Power Producer's Default:

Upon the occurrence of an event of default as set out in sub-clause 10.3.1 above,

MSEDCL may deliver a Default Notice to the Solar Power Producer in writing which shall specify in reasonable detail the Event of Default giving rise to the default notice, and calling upon the Solar Power Producer to remedy the same.

At the expiry of 30 (thirty) days from the delivery of this default notice and unless the Parties have agreed otherwise, or the Event of Default giving rise to the default notice has been remedied, MSEDCL may deliver a Termination Notice to the Solar Power Producer. At the expiry of 30 (thirty) days from the delivery of this default notice and unless the Parties have agreed otherwise, or the Event of Default giving rise to the default notice has been remedied, MSEDCL may deliver a Termination Notice to the Power Producer. MSEDCL may terminate this Agreement by delivering such a Termination Notice to the Power Producer and intimate the same to the MERC. Upon delivery of the Termination Notice this Agreement shall stand terminated and MSEDCL shall stand discharged of all its obligations. The Power Producer shall have liability to make payment within 30 days from the date of termination notice towards compensation to MSEDCL 6 (Six) months or balance PPA period whichever is less, of charges for its contracted capacity at declared Capacity Utilization factor(CUF).

Where a Default Notice has been issued with respect to an Event of Default, which requires the co-operation of both MSEDCL and the Solar Power Producer to remedy, MSEDCL shall render all reasonable co-operation to enable the Event of Default to be remedied without any legal obligations.

#### 10.4.2 Termination for MSEDCL's Default:

- a) Upon the occurrence of an Event of Default as set out in sub-clause 10.3.4 above, the Solar Power Producer may deliver a Default Notice to MSEDCL in writing which shall specify in reasonable detail the Event of Default giving rise to the Default Notice, and calling upon MSEDCL to remedy the same.
- b) At the expiry of 30 (thirty) days from the delivery of the Default Notice and unless the Parties have agreed otherwise, or the Event of Default giving rise to the Default Notice has been remedied, the Solar Power Producer may serve a "Suspension Notice" to MSEDCL for a duration not exceeding one year ("Suspension Period").
- c) During the "Suspension Period" mentioned herein above, MSEDCL shall subject to prior consent of the Solar Power Producer navate its part of the PPA to any third party, including its affiliates or the Solar Power Producer shall be free to sell in the open market by finding the said consumers on its own. In case of wheeling of power to such third parties, the transmission charges, transmission losses, wheeling charges and losses SLDC charges and cross subsidy surcharge etc. shall be applicable as per MERC's regulation in force from time to time and paid directly to respective agencies by third party. No banking facility shall be allowed to Solar Power Producer and third parties.
- d) Till expiry of the Suspension Period, MSEDCL will be entitled to cure its default and buy power from the Power Producer. In the event novation is not acceptable to the Solar Power Producer, or if no offer of novation is made by the defaulting procurer within the stipulated period, then the Solar Power Producer may terminate the PPA and at its discretion require the defaulting procurer to either
  - 1) takeover the project assets by making a payment of the termination compensation equivalent to the amount of the debt due and the 150% (one hundred and fifty per cent) of the adjusted equity as detailed in the PPA or
  - 2) pay to the Solar Power Producer, damages, equivalent to 6 (six) months, or balance PPA period whichever is less, of charges for its contracted capacity with the project assets being retained by the Solar Power Producer.

In the event of termination of PPA, any damages or charges payable to the STU/CTU, for the connectivity of the plant, shall be borne by MSEDCL.

## **Article 11: DISPUTE RESOLUTION**

- 11.1. All disputes or differences between the Parties arising out of or in connection with this Agreement shall be first tried to be settled through mutual negotiation.
- 11.2. The Parties hereto agree to attempt to resolve all disputes arising hereunder promptly, equitably and in good faith.
- 11.3. Each Party shall designate in writing and communicate to the other Party its own representative who shall be authorized to resolve any dispute arising under this Agreement in an equitable manner and, unless otherwise expressly provided herein, to exercise the authority of the Parties hereto to make decisions by mutual agreement.
- 11.4. In the event that such differences or disputes between the Parties are not settled through mutual negotiations within sixty (60) days, after such dispute arises, then it shall be adjudicated by MERC in accordance with Law.
- 11.5. In the event of a dispute as to the amount of any Tariff Invoice, MSEDCL shall notify the Solar Power Producer of the amount in dispute and MSEDCL shall pay the Solar Power Producer 100% of the undisputed amount within the due date provided either party shall have the right to approach the MERC to effect a higher or lesser payment on the disputed amount.
- 11.6. MSEDCL / Solar Power Producer shall not have the right to challenge any Tariff Invoice, or to bring any court or administrative action of any kind questioning/modifying a Tariff Invoice after a period of three years from the date of the Tariff Invoice is due and payable.
- 11.7. The Parties hereto agree to attempt to resolve all disputes arising hereunder promptly, equitably and in good faith.
- 11.8. Each Party shall designate in writing and communicate to the other Party its own representative who shall be authorized to resolve any dispute arising under this Agreement in an equitable manner and, unless otherwise expressly provided herein, to exercise the authority of the Parties hereto to make decisions by mutual agreement.
- 11.9. Where any dispute arises from a claim made by any change in or determination of Tariff or any matter related to Tariff or claims made by any party which partly or wholly relate to any change in the Tariff or determination of any matter agreed to be referred to the MERC, such dispute shall be submitted to adjudication by the MERC. Appeal against the decision of the MERC shall be made only as per the provisions of the Electricity Act, 2003, as amended from time to time.
- 11.10. If the Disputes arises out of or in connection with any claims not covered in Article 11, such disputes shall be resolved by arbitration under Indian Arbitration and Conciliation Act, 1996 and any amendments thereto.



- (i) The arbitration tribunal shall consist of three arbitrators. Each party shall appoint an arbitrator and the arbitrators so appointed shall appoint the President Arbitrator.
- (ii) The place of the arbitration shall be Mumbai, India. The language of the arbitration shall be English.
- (iii) The arbitration tribunal's award shall be substantiated in writing. The arbitration tribunal shall also decide on the costs of the arbitration proceeding and the allocation thereof.
- (iv) Courts in Mumbai shall have exclusive jurisdiction to enforce any award under this agreement, subject to the applicable Laws
- (v) The provisions of this clause shall survive the termination of this PPA for any reason whatsoever.

11.11 The disputes beyond the jurisdiction of MERC shall be filed before the Bombay High Court, Mumbai

## Article 12: INDEMNITY

**12.1. Solar Power Producer's Indemnity:** The Solar Power Producer agrees to defend, indemnify and hold harmless MSEDCL, its officers, directors, agents, employees and affiliates (and their respective officers, directors, agents and employees) from and against any and all claims, liabilities, actions, demands, judgments, losses, costs, expenses, suits, actions and damages arising by reason of bodily injury, death or damage to property sustained by third parties that are caused by an act of negligence or the willful misconduct of the Solar Power Producer, or by an officer, director, sub-contractor, agent or employee of the Solar Power Producer except to the extent of such injury, death or damage as is attributable to the willful misconduct or negligence of, or breach of this Agreement by, MSEDCL, or by an officer, director, sub-contractor, agent or employee of the MSEDCL.

**12.2. MSEDCL's Indemnity:** MSEDCL agrees to defend, indemnify and hold harmless the Solar Power Producer, its officers, directors, agents, employees and affiliates (and their respective officers, directors, agents and employees) from and against any and all claims, liabilities, actions, demands, judgments, losses, costs, expenses, suits, actions and damages arising by reason of bodily injury, death or damage to property sustained by third parties that are caused by an act of negligence or the willful misconduct of MSEDCL, or by an officer, director, sub-contractor, agent or employee of MSEDCL except to the extent of such injury, death or damage as is attributable to the willful misconduct or negligence of, or breach of this Agreement by, the Solar Power Producer, or by an officer, director, sub-contractor, agent or employee of the Solar Power Producer.



### **13.7. Severability:**

Any provision of this Agreement, which is prohibited or unenforceable in any jurisdiction, shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof and without affecting the validity, enforceability or legality of such provision in any other jurisdiction.

### **13.8. Amendments:**

This Agreement shall not be amended, changed, altered, or modified except by a written instrument duly executed by an authorized representative of both Parties. However, MSEDCL may consider any amendment or change that the Lenders may require to be made to this Agreement.

### **13.9. Assignment:**

Neither Party shall assign this Agreement or any portion hereof without the prior written consent of the other Party, provided further that any assignee shall expressly assume the assignor's obligations thereafter arising under this Agreement pursuant to documentation satisfactory to such other Party. However, such assignment shall be permissible only for entire contracted capacity.

Provided however, no approval is required from MSEDCL for the assignment by the Solar Power Producer of its rights herein to the Financing Parties and their successors and assigns in connection with any financing or refinancing related to the construction, operation and maintenance of the Project.

In furtherance of the foregoing, MSEDCL acknowledges that the Financing Documents may provide that upon an event of default by the Solar Power Producer under the Financing Documents, the Financing Parties may cause the Solar Power Producer to assign to a third party the interests, rights and obligations of the Solar Power Producer thereafter arising under this Agreement. MSEDCL further acknowledges that the Financing Parties, may, in addition to the exercise of their rights as set forth in this Section, cause the Solar Power Producer to sell or lease the Project and cause any new lessee or purchaser of the Project to assume all of the interests, rights and obligations of the Solar Power Producer thereafter arising under this Agreement.

### **13.10. Entire Agreement, Appendices:**

This Agreement constitutes the entire agreement between MSEDCL and the Solar Power Producer, concerning the subject matter hereof. All previous documents, undertakings, and



# SCHEDULE 1: PARAMETERS AND TECHNICAL LIMITS OF SUPPLY

## 1. Electrical characteristics

- Three phase alternating current
- Nominal declared frequency : 50.0 Hz
- Final Voltage at Delivery Point: kV

Short circuit rating: As a part of the detailed design process, the Solar Power Producer shall calculate the short circuit rating (minimum and maximum), and supply this information to the MSEDCL.

**Note:** The tolerances & Electrical characteristics variations and Basic Insulation level will be as per relevant grid code and CEA standards.

## 2. Quality of Service

The Power Producer shall be responsible for the delivery of energy conforming Performance Standards for Transmission and Bulk Supply as approved by MERC.

The maximum current and voltage waveform distortion shall be in accordance with the limits prescribed under Central Electricity Authority (Grid Standards) Regulations 2010, as amended from time to time.

## 3. Power Factor:

The Producer shall maintain the Power Factor as per the prevailing MERC/CERC regulations and as may be stipulated / specified by STU/MSEDCL from time to time. The Solar Power Producer shall provide suitable protection devices, so that the Electric Producers could be isolated automatically when grid supply fails.

Connectivity criteria like short circuit level (for switchgear), neutral Grounding, fault clearance time, current unbalance (including negative and zero sequence currents), limit of harmonics etc. shall be as per Grid Code.

## **SCHEDULE 2: TECHNICAL LIMITS**

1. The nominal steady state electrical characteristics of the system are as follows:
  - a) Three phase alternating current at 50 Hertz plus or minus 0.5 Hertz
  - b) Nominal voltage of 11/22 kV with 6% on higher side to 9% on the lower side variation.
2. The Project shall be designed and capable of being synchronized and operated within a frequency range as per relevant Grid Code and voltage of 11/22 kV
3. Operation of the Project outside the nominal voltage and frequency specified above will result in reduction of power output consistent with Producer capability curves.

## **SCHEDULE 3: APPROVALS**

1. Consent/ Approval from the MSEDCL for the evacuation scheme along with metering arrangement for evacuation of the power generated by the      MW Solar Photovoltaic Grid Interactive Power Projects.
2. Permission from all other statutory and non-statutory bodies required for the Project.
3. Clearance from Department of Forest, Ecology and Environment, if required
4. Approval of the Electrical Inspectorate, Government of Maharashtra for commissioning of the transmission line and the solar project installed at the Project Site.
5. Start-up Power/ Auxiliary power/connection Agreement with MSEDCL.
6. SNA/MEDA registration certificate before commissioning of Project.
7. Permission to Commission from MSEDCL/SLDC.
8. Certificate of Commissioning of the Solar Photovoltaic Grid Interactive Power Project issued by STU/MSEDCL/SLDC/MEDA.



## **Appendix-A-1**

- i) The Solar Power Producer shall give to the concerned SLDC, State Nodal Agency (SNA) and MSEDCL at least Thirty (30) days advance written notice, of the date on which it intends to synchronize the Power Project to the Grid System. The Solar Power Producer shall be solely responsible for any delay or non-receipt of the notice by the concerned agencies, which may in turn affect the Commissioning Schedule of the Project.
- ii) A Solar PV Project will be considered as commissioned if all equipment as per rated project capacity has been installed and energy has flown into the grid.
- iii) Solar Power Producer shall ensure that the equipment up to the rated Capacity has been installed and completed in all respects before the Schedule Commissioning Date.

### **Documents to be submitted to MSEDCL within 30 days after synchronization:**

The Solar Power Producer shall have to submit the hardcopies to MSEDCL:

1. Covering Letter
  2. Board resolution for authorized signatory.
  3. Invoice of the major equipment (including but not limited to modules, Inverters/PCUs, Weather Monitoring Stations/ DC Cables and for all the equipment's).
  4. All supporting documents towards meeting the technical compliance along with datasheet/ warranty certificates/ contract agreement etc. as mentioned in Annexure-A.
  5. Installation report duly signed by the authorized signatory as per Appendix-A-2
  6. Plant Layout clearly mentioning the details of rows and number of modules in each row.
  7. Electrical inspector report along with all annexures/attachments. It would be the responsibility of the Solar Power Producer to collect the certificate.
  8. Solar Power Producer shall ensure Connectivity to the grid from concerned STU/ Transmission Utility/MSEDCL. Connectivity report as per the Appendix-A-3
  9. Synchronization Certificate as per prescribed format issued by respective STU/Transmission Utility/MSEDCL for ascertaining injection of power into grid as per Appendix-A-4.
  10. Relevant document from SLDC acknowledging successful data communication between plant end and SLDC.
- iv) In case any additional supporting/revised documents are asked by MSEDCL, the same have to be submitted/uploaded by the Solar Power Producer.
  - v) The Solar Power Producer shall have to submit commissioning date along with commissioning order issued by State Nodal Agency/State Utility.
  - vii) Early Commissioning of a Solar Project prior to the scheduled commissioning date is permitted on acceptance of power by MSEDCL. In order to facilitate this, shall inform the concerned SLDC and MSEDCL well in advance the date on which it intends to synchronize the Power Project to the Grid System. The SOLAR POWER PRODUCER shall be required to give an advance notice of at least 90 days prior to the proposed commissioning date.
  - xi) Joint Meter Reading (JMR) shall be taken at Delivery Point and Pooling Substation (if

applicable)/plant premise at the time of connectivity of the Project with Grid. This shall include information of respective meters installed at delivery/ interconnection point and pooling substation/plant premises.

### Installation Report

(To be provided by SOLAR POWER PRODUCER and to be submitted at least 10 days prior to commissioning date)

Sr. No.	Capacity of the Project (MW)	
	Capacity already commissioned (MW)	
	Capacity proposed to be commissioned (MW)	
I.	Technology used  (Mono/Multi Crystalline / thin film / Others; please specify along with capacity of each type)	
II.	Rating of the each module (Wp)	
III.	Angle from horizontal at which array is installed	
IV.	Number of modules installed of each type	
V.	Source(s) of the cells installed of each type	
VI.	Source(s) of the Modules installed of each type	
VII.	Number of PCUs / Inverters installed	
VIII.	Source of the PCUs / Inverters (Name of supplier with address)	
IX.	Rating of PCUs / Inverters	
X.	Date of installation of full capacity (as per capacity proposed to be commissioned)	-----
	PV arrays	
	PCUs / Inverters	
	Transformers	
XI	Documents / Lease Agreement to establish possession / right to use 100% (hundred per cent) of the required land in the name of Solar Power Producer for a period not less than the complete term of PPA.	

### Sample Connectivity Report

(To be provided by concerned STU/Transmission Utility/MSEDCLs)

This is in compliance to the office order of the -----,----- MSEDCL, <Place> issued vide office order

<No.><dated>, the committee constituted vide said order has completed the work for commissioning of <kV> Bay & Metering Equipment to interconnect the <MW> Solar Power Generation Plant (having

<technology>) with Grid installed at <Village>, <Tehsil>, <District> in the <State> on <date>. The details of Solar Power Plant are as under:-

S. No	Name of Solar Power Producer & Location	Capacity Mentioned in PPA	Connectivity	Details of Solar Power Plant (Transformer, Inverter, Modules, Switchgear)
1	<M/s>  <Village>  <Tehsil>  <District.	<> MW	Metering Detail at Delivery Point  (<Village>)  S.No. of <kV> CT  i) <R- Phase> ii) <Y-Phase> iii) <B- Phase>  S.No. of <kV> PT  i) <R- Phase> ii) <Y-Phase> iii) <B- Phase>  S.No. of Main<ABT>	Transformer  <Make/Type:>  <Sr. No.> Inverters <Make/Type:>  <Sr. No.>  Modules <Make: >  <W>, < W >  <Total: Nos.> Switchgear Panels <Make/Type:>

The Commissioning date of various equipment is as under:

<kV> line from --- to -----, completed on date -----.

Line Bay at < kV > GSS, ----- charged for ---- on -----.

<kV> line charged from -----to----- on date-----.

Main & check metering commissioned on ..... (initial record of main/Check meters at the time of Commissioning is to be taken and enclosed)

Complete system commissioned on date-----

The Joint Inspection Report of metering arrangement & copy of permission of Electrical Inspector is enclosed herewith.

**Sample Synchronization Certificate**

It is certified that ----- MW (Capacity) Solar Photovoltaic Power Project of M/s. -----, Village - ----- Tehsil/Taluka -----, District ----- was Grid connected on ..... (Date) at----- Hrs.

It is further certified that the Project was synchronized and supply of power into the grid from the Project connected on ..... (Date) at ----- Hrs.

The above certificate is issued on the basis of MRI record.

NB:

- (i) The above certificate shall be issued by concerned STU/ Transmission Utility/MSEDCLs
- (ii) Copy of duly signed MRI is to be enclosed.

**Sample Part Commissioning / Full Commissioning Certificate of Solar  
PV Power Project**

This is to certify that <M/s> having its registered office at ----- has successfully commissioned Capacity < MW > out of total <MW> installed Capacity on (Date) of their Solar PV Power Generation Project at Village -----, Tehsil/Taluka ----- & Dist. -----

The Commissioning Certificate has been issued on the basis of the following documents enclosed:

- (i) Installation Report including Snap shots of the Project from various angles
- (ii) Electrical Inspector Report
- (iii) Connectivity Report
- (iv) Synchronization Certificate including MRI record

NB: To be issued by as mentioned in clause 3.17.

## Format for Solar plant Commissioning Report

Ref.No.

Date:

To,  
The Chief Engineer (Renewable Energy) ,  
Fifth Floor, Prakashgadh,  
Bandra East, Mumbai 400051

**Sub:** Commissioning of newly erected 11 KV feeder bay & metering cubicles for solar generation project at 33/11 KV substation ..... Dist.....

With reference to the above subject, Small solar power plant having generation capacity of .....MW has been erected at 33/11 KV .....substationhas been commissioned for solar generation project on dated ..... in presence of EE(T).....,& EESL representatives (concerned office & agency representatives)

**The details are as below:-**

### 1. Details of TOD Meter (Main Meter& Check Meter)

Main Meter		Check Meter	
Make	.....	Make	.....
Type	.....	Type	.....
Sr.No.	.....	Sr.No.	.....
CT Ratio	-5 A	CT Ratio	-5 A
PT Ratio	11000/110V	PT Ratio	11000/110V
Class of Accuracy	0.2s	Class of Accuracy	0.2s
SF for Unit	1	SF for Unit	1
SF For MD	1	SF For MD	1
Pulse per unit	.....	Pulse per unit	.....
Year of Mfg.	.....	Year of mfg	.....
Date of Meter Testing		Date of Meter Testing	
Meter Testing Lab No.		Meter Testing Lab No.	

Main Meter		Check Meter	
Make	.....	Make	.....
Sr.No.	.....	Sr.No.	.....
Type	Compact	Type	Compact
Voltage	..... KV/110 V	Voltage	.....KV/110 V
CTR	...../.....A	CTR	...../.....A
CT Sr.No. R		CT Sr.No. R	
CT Sr.No. Y		CT Sr.No. Y	
CT Sr.No. B		CT Sr.No. B	
PTR	..... KV/110 V	PTR	..... KV/110 V
PT Sr.No. R		PT Sr.No. R	
PT Sr.No. Y		PT Sr.No. Y	



PT Sr.No. B		PT Sr.No. B	
Year of Mfg.		Year of Mfg .	
Date of Testing		Date of Testing	
Testing Lab No.		Testing Lab No.	

## 2. H.T.Metering Cubicals (Main & Check Meter)

### Other information:

Particulars	Details	Particulars	Details
Zone Code		<b>Zone Description</b>	
Circle Code		Telephone/Fax No.	
Division Code		Email Address.	
Subdivision Code		<b>Circle Description</b>	
Substation Code		Telephone/Fax No.	
Feeder Code generated in NDM		Email Address.	
Solar feeder Name		<b>Division Description</b>	
CE Approval Number & date		Telephone/Fax No.	
EI approval Number & date		Email Address.	
Administrative approval & date		<b>Sub division Description</b>	
Forest clearance & date If any		Telephone/Fax No.	
Other permissions if any		Email Address.	

Initial reading of Meter – recorded & attached in separate format.

11 KV feeder bay and metering cubicles is successfully charged on dated .....

The MF for KWH and KVA MD is .....

This is your information in and needful action please.

**Superintending Engineer (O&M Circle)**

### Copy s.w.rs.to:-

The Executive Engineer, MSEDCL Testing Division, .....

The Executive Engineer, MSEDCL O&M Division, .....

The Addl. Executive Engineer, MSEDCL O&M Sub Division, .....

**Annexure-A**

Meter readings in below mentioned format for date of commissioning and last day of that month

**Metering Point - Solar Plant.....**

**Meter Sr. No. :- .....**

**Meter Type - Main Meter**

**Date Of Commissioning - .....**

<b>Sr.No.</b>	<b>Parameter</b>	<b>Current reading (On month end at 00.00 Hrs.)</b>	<b>Previous reading (On commissioning day)</b>	<b>Difference</b>
1	KWH DEL			
2	KWH DEL A			
3	KWH DEL B			
4	KWH DEL C			
5	KWH DEL D			
6	KWH REC			
7	KWH REC A			
8	KWH REC B			
9	KWH REC C			
10	KWH REC D			
11	KVAH DEL			
12	KVAH REC			
13	KVARH Q1			
14	KVARH Q2			
15	KVARH Q3			
16	KVARH Q4			

Meter readings in below mentioned format for date of commissioning and last day of that month

**Metering Point - Solar Plant .....**

**Meter Sr. No. :- .....**

**Meter Type - Check Meter**

**Date of Commissioning -**

Sr.No.	Parameter	Current reading (On month end at 00.00 Hrs.)	Previous reading (On commissioning day)	Difference
1	KWH DEL			
2	KWH DEL A			
3	KWH DEL B			
4	KWH DEL C			
5	KWH DEL D			
6	KWH REC			
7	KWH REC A			
8	KWH REC B			
9	KWH REC C			
10	KWH REC D			
11	KVAH DEL			
12	KVAH REC			
13	KVARH Q1			
14	KVARH Q2			
15	KVARH Q3			
16	KVARH Q4			

**Sub divisional officer  
Name of Sub dn**

**Sample reading for reference only:**

Metering Point            Halakarni substation site  
Meter Sr. No.                2868957  
Meter Type - Main  
Date of Commissioning: 09.07.2019.

Sr.No.	Parameter	Current reading (Month end Reading)	Previous (Date of commissioning) reading	Difference
	Date	31.07.19	09.07.19	
	Time	0:00:00	12:04:00	
1	KWH DEL	270.7975	254.1725	16.625
2	KWH DEL A	11.7575	0	11.7575
3	KWH DEL B	145.2225	144.76	0.4625
4	KWH DEL C	69.7225	69.685	0.0375
5	KWH DEL D	44.095	39.7275	4.3675
6	KWH REC	3,448.23	135.28	3312.95
7	KWH REC A	0.00	0.00	0
8	KWH REC B	2,338.85	90.28	2248.57
9	KWH REC C	1,085.61	45.00	1040.603
10	KWH REC D	23.78	0.00	23.7775
11	KVAH DEL	296.0625	278.3525	17.71
12	KVAH REC	3,526.40	212.71	3313.688
13	KVARH Q1	58.3525	56.48	1.8725
14	KVARH Q2	162.88	69.745	93.135
15	KVARH Q3	78.02	77.6725	0.3475
16	KVARH Q4	87.3125	50.5075	36.805

## **SCHEDULE 4: SPECIFICATION OF ELECTRICAL ENERGY DELIVERY**

1. The generation voltage from the Solar Photovoltaic Grid Interactive Power Project of M/s. \_\_\_\_\_ is \_\_\_\_\_ KV. It uses unit connection of Producer, Producer transformer and unit transformer.
2. The generated power at \_\_\_\_\_ KV will be stepped up to \_\_\_\_\_ KV at the Project Site and connected \_\_\_\_\_ KV at for the purpose of interconnection with the Grid System.

## SCHEDULE 5: DETAILS REQUIRED FROM SOLAR POWER PRODUCER

### Details required from Vendor

Sr No	Particulars	Vendor Information
1	TITLE_MEDI Mr/Ms/Company/SSI	
2	Name of the company /Firm	
3	Name of the Proprietor	
4	Street	
5	Postal Code (Pin Code)	
6	City	
7	Telephone No	
8	Mobile Phone No	
9	E-Mail	
10	Payt Terms (to work due date from bill)	
11	Payment methods (Cash/RTGS/DD/Chq/etc)	
12	TAN Number	
13	PAN Number	
14	GST Number	
15	M-VAT Number	
16	Service Tax Number	
17	Bank name	
18	Branch	
19	Bank A/c Number	
20	Beneficiary/Account Holder Name	
21	IFSC Code	
22	MICR Code	
23	Nature of transaction (contract, Rent, profession fees, etc)	
24	Section under which TDS is deducted	
25	Recipient Type (Company, Individual, Partnership firm, HUF or other)	