

**STANDARD**

**POWER PURCHASE AGREEMENT (PPA) FOR**

**PROCUREMENT OF ... kW SOLAR POWER**

**ON LONG TERM BASIS**

**BETWEEN**

**..... [Insert Name of Solar Power Developer]**

**AND**

**..... [Insert Name of Buying Entity]**

This Power Purchase Agreement is made on the ..... [Insert date] day of ..... [Insert month] of ..... [Insert year] at ..... [Insert place]

Between

..... [Insert name of the Solar Power Developer], a Company incorporated under the Companies Act 1956 or Companies Act 2013, having its registered office at ..... [Insert address of the registered office of Solar Power Developer] (hereinafter referred to as “**Solar Power Developer**” or “**SPD**” or “**Developer**”, which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) as a Party of the **First Part**;

And

..... [Insert name of the Buying Entity], a company incorporated under the Companies Act 1956 or Companies Act 2013, having its registered office at ..... [Insert address of the registered office of Buying Entity] (hereinafter referred to as “**Buying Entity**” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and assignees) as a Party of the **Second Part**;

The Buying Entity and SPD are each individually referred to as a "Party" and collectively as the "Parties".

WHEREAS:

- A. Solar Energy Corporation of India Limited (hereinafter referred to as “**SECI**”) had initiated a Tariff Based Competitive Bid Process for Selection and Empanelment of Solar Power Developers for up of Grid connected Rooftop Solar PV Projects on Residential, Government and commercial buildings under RESCO mode under RESCO mode on the terms and conditions contained in the Request for Selection (hereinafter referred to as “**RfS**”) issued by SECI vide RfS No. .... dated .....
- B. SECI has issued the Letter of Award No. .... dated .... in favour of the \_\_\_\_ [Insert name of the Bidding Company] for development and establishment of the ... kW Rooftop Solar Project in the State of ... as per terms and conditions contained in the RfS, draft of this Power Purchase Agreement circulated at the time of the bidding and other bidding documents as well as the conditions contained in the Letter of Award.

- C. ... [Insert Name of the Bidding Company] has been selected in the Competitive Bidding Process, {in case Bidding Company is executing the Project through SPV} has constituted a Special Purpose Vehicle ... [Insert Name of the SPV] (hereinafter referred to as '**SPD**'), for development, generation and supply of electricity from the ... kW Rooftop Solar Power Project to be established by the SPD ... [Insert name of the States in which the Project is located] and for supply of such electricity to the Buying Entity as per this Power Purchase Agreement.
- D. SPD is engaged in the business of design, supply, erection, testing, commissioning, operating and maintenance of power plants, including grid connected rooftop power projects.
- E. SPD has agreed to install and operate a solar photovoltaic powerplant of ... kW capacity (the "**Project**") at the Premises after due inspection of the Premises as defined hereinafter and supply the entire Solar Power of the Project to Buying Entity on the terms and conditions contained in this Agreement.
- F. The Buying Entity has agreed to purchase the entire Solar Power of the Project on the terms and conditions contained in this Agreement.
- G. In terms of the RfS and the Bidding Documents, the SPD has furnished the Performance Bank Guarantee in the sum of Rs. \_\_\_\_ in favour of Buying Entity as per the Format provided as part of the Bidding Documents.

**Now therefore, in consideration of the premises and mutual agreements, covenants and conditions set forth herein, it is hereby agreed by and between the Parties as follows:**

## **1. Definitions and Interpretation**

### **1.1 Definitions**

In addition to other capitalized terms specifically defined elsewhere in the Agreement or unless the context otherwise requires, the following words and phrases shall be defined as follows:

“Actual Monthly Production”	means the amount of energy recorded by the Main Metering System during each calendar month of the Term, pursuant to Section 5.2;
“Adjusted Equity”	<p>shall mean 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;</p> <p>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;</p> <p>ii. An amount equal to the Adjusted Equity as on COD shall be deemed to be the base (the “Base Adjusted Equity”);</p> <p>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;</p>

	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.
“Affiliate”	means with respect to any specified Person, any other Person, directly or indirectly controlling, controlled by or under common control with such specified Person;
“Agreement”	means this Power Purchase Agreement executed hereof, including the schedules, amendments, modifications and supplements made in writing by the Parties from time to time;
“Applicable Law”	means, with respect to any Person, any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, guideline, Governmental Approval, consent or requirement of any Governmental Authority in India having jurisdiction over such Person or its property, enforceable by law or in equity, including the interpretation and administration thereof by such Governmental Authority;
“Assignment”	has the meaning set forth in Section 14.1;
“Business Day”	means any day other than Sunday or any other day on which banks in ____ [Insert place of location of Buying Entity’s Office] are required or authorized by Applicable Law to be closed for business;
“Buying Entity Default”	has the meaning set forth in Section 12.2 (a);
“Buying Entity Indemnified Parties”	has the meaning set forth in Section 16.1;
“Capacity Utilization Factor” or “CUF”	shall have the same meaning as provided in CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009 as amended from time to time.

	<p>However, for avoidance of any doubt, it is clarified that the CUF shall be calculated on the Contracted Capacity.</p> <p>For illustration, CUF shall be calculated based on the annual energy injected and metered at the Delivery Point. In any Contract Year, if ‘X’ MWh of energy has been metered out at the Delivery Point for ‘Y’ MW Project capacity, <math>CUF = (X \text{ MWh} / (Y \text{ MW} * 8766)) * 100\%</math>;</p> <p>Declared CUF for this Project shall be ____ % (to be revised as applicable).</p>
“Commercial Operation Date” or “COD”	has the meaning set forth in Section 4.3(b);
“Confidential Information”	has the meaning set forth in Section 15.1;
“Consents, Clearances and Permits”	shall mean all authorization, licenses, approvals, registrations, permits, waivers, privileges, acknowledgements, agreements, or concessions required to be obtained from or provided by any concerned authority for the purpose of setting up of the generation facilities and/or supply of power;
“Deemed Generation”	has the meaning set forth in Section 5.3 (c);
“Delivery Point”	shall be the single point, at a location mutually agreed by the Parties, in line with applicable regulation/ rules where Solar Power is delivered by the SPD from the System to the Buying Entity;
“Dispute”	has the meaning set forth in Section 17.8 (b);
“Disruption Period”	has the meaning set forth in Section 5.3 (c);
“Distribution Utility”	means the local electric distribution owner and operator providing electric distribution and interconnection services to Buying Entity at the Premises;
“Due Date”	has the meaning set forth in Section 7.5;
“Effective Date”	has the meaning set forth in Section 2;
“Estimated Remaining Payments”	means as of any date, the estimated remaining Solar Power Payments to be made through the end of the applicable Term, as reasonably determined by SPD in accordance with Section

	7.2;
“Expiration Date”	means the date on which the Agreement terminates by reason of expiration of the Term.
“Financing Party”	means, as applicable (i) any Person (or its agent) from whom the SPD (or an Affiliate of the SPD) leases the System, or (ii) any Person (or its agent) who has made or will make a loan to or otherwise provide financing to the SPD (or an Affiliate of the SPD) with respect to the System;
“Force Majeure Event”	has the meaning set forth in Section 11.1;
“Governmental Approval”	means any approval, consent, franchise, permit, certificate, resolution, concession, license or authorization issued by or on behalf of any applicable Governmental Authority for the purpose of setting up of the Project and / or for sale and purchase of Solar Power of the Project pursuant to this Agreement;
“Governmental Authority”	means any central, state, regional, district, town, city or municipal government, whether domestic or foreign, or any department, agency, bureau, or other administrative, regulatory or judicial body of any such government;
“Indemnified Persons”	means the Buying Entity Indemnified Parties or the SPD Indemnified Parties, as the context requires;
“Insolvency Event”	means with respect to a Party, that either: i. such Party has (A) applied for or consented to the appointment of, or the taking of possession by, a receiver, custodian, trustee, administrator, liquidator or the like of itself or of all or a substantial part of its assets or business; (B) been unable to pay its debts as such debts become due; (C) made a general assignment for the benefit of its creditors; (D) commenced a voluntary proceeding under any insolvency or bankruptcy law; (E) filed a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; or (F) taken any corporate or other action for the purpose of effecting any of the foregoing; or

	<p>ii. It is clarified that a dissolution or liquidation will not be an Insolvency Event if such dissolution or liquidation is for the purpose of a merger, consolidation or reorganization, and the resulting company retains creditworthiness similar to the dissolved or liquidated entity and expressly assumes all obligations of the dissolved and liquidated entity under this Agreement and is in a position to perform them;</p>
“Installation Work”	means the construction and installation of the System and the start-up, testing and acceptance (but not the operation and maintenance) thereof, all performed by or for the SPD at the Premises;
“Invoice Date”	has the meaning set forth in Section 7.3;
“Lender”	means such bank, or other financial institution, including their successors and assignees, who have agreed to provide the SPD with debt financing of the Project;
“Losses”	means all losses, liabilities, claims, demands, suits, causes of action, judgments, awards, damages, cleanup and remedial obligations, interest, fines, fees, penalties, costs and expenses (including all attorneys’ fees and other costs and expenses incurred in defending any such claims or other matters or in asserting or enforcing any indemnity obligation);
“Main Metering System”	means all meter(s) and metering devices owned by the SPD and installed at the Delivery point for measuring and recording the delivery and receipt of energy;
“Metering Date”	means the first Business day of each calendar month subsequent to the month in which the Solar Power is generated by the SPD. The billable units shall be equal to the difference between the meter reading on the Metering Date and the meter reading on the previous month’s Metering Date;
“Party or Parties”	has the meaning set forth in the preamble to this Agreement;
“Person”	means an individual, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, firm, or other entity,



	or a Governmental Authority;
“Premises”	means the premises described in Schedule I to this Agreement. For the avoidance of doubt, the Premises includes the entirety of any structures and underlying real property located at the address described in Schedule I to this Agreement;
“Purchase Date”	means the date on which title to the System transfers to the Buying Entity pursuant to the Buying Entity exercising its purchase option under Section 3.2;
“Representative”	has the meaning forth in Section 16.1;
“Scheduled Completion Date” or “SCD”	has the meaning set forth in Section 4.1(g);
“Security Interest”	has the meaning set forth in Section 9.2;
“Selectee”	means a new company (i) proposed by the Lenders pursuant to Section 12.1 read with Schedule IV hereof and approved by the Buying Entity (ii) or proposed by the Buying Entity in accordance with Schedule IV hereof and approved by the Lenders, for substituting the SPD for the residual period of the Agreement by amendment of the Agreement or by execution of a fresh power purchase agreement in accordance with the terms and conditions contained in the said Schedule;
“Solar Power”	means the supply of electrical energy output from the System;
“Solar Power Payment”	has the meaning set forth in Section 7.2;
“SPD Default”	has the meaning set forth in Section 12.1 (a);
“SPD Indemnified Parties”	has the meaning set forth in Section 16.2;
“System” or “Project”	includes the integrated assembly of photovoltaic panels, mounting assemblies, inverters, converters, metering, lighting fixtures, transformers, ballasts, disconnects, combiners, switches, wiring devices and wiring, and all other material comprising the Installation Work;
“System Operations”	means the SPD’s operation, maintenance and repair of the System performed in accordance the requirements herein;
“Tariff”	means the applicable price per kWh as per Section 7;

“Term”	has the meaning set forth in Section 3.1;
“Transfer Time”	has the meaning set forth in Section 5.3 (a).

## 1.2 Interpretation

- (a) Unless otherwise stated, all references made in this Agreement to "Sections", "Clauses" and "Schedules" shall refer respectively to Sections, Clauses and Schedules of this Agreement. The Schedules to this Agreement form an integral part of this Agreement and shall have effect as though they were expressly set out in the body of this Agreement.
- (b) In this Agreement, unless the context otherwise requires (i) words imparting singular connotation shall include plural and vice versa; (ii) the words “include”, “includes”, and “including” mean include, includes and including “without limitation” and (iii) the words “hereof”, “hereto”, “herein” and “hereunder” and words of similar import refer to the Agreement as a whole and not to any particular provision of the Agreement.

## 2. Effective Date

This Agreement shall be effective from the date of signing of this Agreement.

## 3. Term and Termination

### 3.1 Term

The term of the Agreement shall commence on the Effective Date and shall continue for twenty-five (25) years from the Commercial Operations Date (the "**Term**"), unless and until terminated earlier pursuant to the provisions of the Agreement. After the Term, the ownership of the System shall be transferred to the Buying Entity free of cost.

### 3.2 Not used

### 3.3 Conditions of the Agreement prior to installation

In the event that any of the following events or circumstances occur prior to the Commercial Operation Date, the SPD may terminate the Agreement, in which case neither Party shall have any liability to the other except for any such liabilities that may have accrued prior to such termination:

- (a) There has been a material adverse change in the rights of Buying Entity to occupy the Premises or the SPD to install the System at the Premises.

- (b) SPD has determined that there are easements, Capacity Cost Recovery (CCRs) or other liens or encumbrances that would materially impair or prevent the installation, operation, maintenance or removal of the System.

## **4 Construction, Installation, Testing and Commissioning of the System**

### **4.1 Installation Work**

- a) SPD will cause the Project to be designed, manufactured, supplied, engineered, erected, tested and commissioned, operated & maintained and constructed substantially in accordance with RfS No. \_\_\_\_ dated \_\_\_\_ of SECI. SPD shall provide to the Buying Entity a bill of materials listing the major equipment constituting the System. Such bill of materials shall be provided within thirty (30) days of the Commercial Operation Date.
- b) SPD shall have access as reasonably permitted by the Buying Entity to perform the Installation Work at the Premises in a manner that minimizes inconvenience to and interference with the use of the Premises to the extent commercially practical.
- c) It is agreed between the Parties that the SPD shall commission the System with a capacity of approximately \_\_\_\_ kWp.
- d) SPD shall provide and lay the dedicated electrical cables for transmission of Solar Power from the System up to the Delivery Point. Transmission or distribution of Solar Power beyond this point will be the responsibility of the Buying Entity. The Delivery Point shall be where the Main Metering System is located.
- e) Unless otherwise agreed between the Parties, SPD shall not do (a) chipping of rooftop; or (b) water proofing of roof to be disturbed; (c) carryout any other modification of the Premises without the written consent of the Buying Entity. SPD shall maintain general cleanliness of area around the Project during construction and operation period of the Project. In case any damages is caused to the equipment/ facilities owned by the Buying Entity due to the SPD, the same shall be made good/rectified by the SPD at their cost.
- f) SPD shall, within thirty (30) days of the Effective Date, submit to the Buying Entity shop drawings of the Project for approval ("**Shop Drawings**"). If the Buying Entity has any objection/recommendation in the Shop Drawings, it shall communicate the same to SPD within a period of thirty (30) working days of the date of submission of theShop Drawings.

Any delay will extend the Effective Date and such approval shall not be unreasonably withheld.

- g) Subject to any punch-list items which shall be agreed by the SPD as not being material to completion of the Project, the SPD agrees that it shall achieve the completion of the Project/Commissioning of the Project within the scheduled completion period from the Effective Date (“**Scheduled Completion Date**”). Buying Entity shall ensure that sufficient load is available at the Delivery Point to ensure synchronization and draw of power from System.
- h) If the SPD is unable to commence supply of Solar Power to the Buying Entity by the Scheduled Completion Date, other than for the reasons specified in Article 11 and 12.2 (Force Majeure or Buying Entity’s Default), the SPD or its contractor shall pay to Buying Entity genuine pre-estimated liquidated damages for the delay in such commencement of supply of Solar Power as per the clause of SECI’s RfS appended as Schedule III to this Agreement.
- i) The Buying Entity shall ensure that all arrangements and infrastructure for receiving Solar Power beyond the Delivery Point are ready on or prior to the Commercial Operation Date and is maintained in such state in accordance with applicable laws through the Term of the Agreement.
- j) SPD shall fulfill all obligations undertaken by it under this Agreement.

## **4.2 Approvals and Permits**

Each of the Parties shall assist the other Party in obtaining all necessary Government Approvals, third party approvals and permits including but not limited to those listed in Schedule II hereto and any waivers, approvals or releases required pursuant to any applicable CCR.

## **4.3 System Acceptance Testing**

- a) The SPD shall give fifteen (15) days advance notice to conduct the testing of the Project and in the presence of Buying Entity’s designated representative conduct testing of the Project in accordance with procedure as approved by SECI/Buying Entity.
- b) Testing of the project shall be done as per the procedure approved by Buying entity in compliance with relevant regulation of CEA in force and shall be recorded in the check list attached at **Annexure-A**, then the SPD shall send a written notice to Buying Entity to that

effect, and the date of successful conducting such tests and injection of Power at Delivery Point shall be the “**Commercial Operation Date**”.

- c) The plant should be capable of generating energy for 5 hours continuously with PR of ~70%.

## **5 System Operations**

### **5.1 The SPD as Owner and Operator**

The System will be legally and beneficially owned by the SPD and will be operated and maintained and, as necessary, repaired by the SPD at its sole cost and expense. Replacement of spare parts if any shall be responsibility of SPD for the complete period of Agreement. If any repair or maintenance costs is incurred by the SPD as a result of Buying Entity's negligence or breach of its obligations hereunder, the same shall be reimbursed in full by Buying Entity.

SPD shall not be responsible for any work done by others on any part of the System/Project authorized by the Buying Entity and not authorized in advance by the SPD in writing. SPD shall not be responsible for any loss, damage, cost or expense arising out of or resulting from improper environmental controls or improper operation or maintenance of the System by Buying Entity or anyone instructed to do such work by Buying Entity. In the event of a problem with the System, as a result of the Buying Entity's actions, for which SPD is not responsible as provided in this Agreement, Buying Entity may choose and pay SPD for diagnosing and correcting the problem at SPD or SPD's contractors' standard rates and charges then in effect.

### **5.2 Metering**

- a) The SPD shall install the Main Metering System with due certification at the Delivery Point for the measurement of electrical energy produced by the System.
- b) All meter readings to be fetched automatically to eliminate manual intervention completely. SPD must ensure that secured access to the energy data is made available to Buying entity for real time monitoring and periodic checking. Data Logging/ Plant Monitoring system must include the parameters as mentioned at **Annexure-B**.
- c) The Main Metering System at the Delivery Point and any additional meters required by Applicable Law shall be tested, maintained and owned by the SPD.

- d) The SPD shall connect the solar output to the existing system of the Buying Entity as per the requirements and guidelines of the state DISCOM.
- e) The risk and title to the Solar Power supplied by the SPD shall pass to the Buying Entity at the Delivery Point.

### 5.3 System Disruptions

- a) **Unavailability of Premises:** Buying Entity will provide full access of the site to SPD for installation, operation and maintenance of solar power plant during the period of Agreement. Buying Entity will also provide restricted access of the Premises to SPD for operation and maintenance of solar power plant. If, for reasons other than the SPD's breach of its obligations herein, the SPD ceases to have access rights to the Premises as necessary to operate and maintain the System prior to the Expiration Date, then the SPD shall be entitled to terminate this Agreement. Buying Entity shall pay the Purchase Price to the SPD.
- b) Buying Entity will not provide/construct any structure within its Premises or around its premises which shades the solar panels effecting the generation of the energy during the Agreement period.
- c) **Roof Repair and other System Disruptions:** In the event that (a) the Buying Entity repairs the Premises' roof for any reason not directly related to damage, if any, caused by the System, and such repair requires the partial or complete temporary disassembly or movement of the System, or (b) any act or omission of Buying Entity or Buying Entity's employees, Affiliates, agents or subcontractors (collectively, a "**Buying Entity Act**") results in a disruption or outage in System production, and such events attributable to Buying Entity except Force majeure, then, in either case, Buying Entity shall (i) pay the SPD for all work required by the SPD to disassemble or move the System and re-assemble the system after completion of the repair work and (ii) continue to make all payments for the Solar Power during such period of System disruption (the "**Disruption Period**"). The cost of shifting the equipments shall be borne by the party responsible for the roof repair and other system disruptions. For the purpose of calculating Solar Power Payments and lost revenue for such Disruption Period, Solar Power shall be deemed to have been produced at the average rate over the preceding twelve (12) months of operation or, if the disruption occurs within the first twelve (12) months of operation, the average over such period of operation ("**Deemed Generation**"). SPD shall inform the Buying Entity about the disruption or outage in System production, for reasons attributable to Buying Entity in writing with date and time of such occurrence; and Buying Entity's liability shall start from the date of intimation of

disruption or outage in System production on account of Buying Entity.

Prior intimation of any “Deemed Generation” loss should be given to the buying authority and only after fifteen (15) days, this “Deemed Generation” loss should be made effective against the buying authority.

In case of any disruptions in solar power generation for more than a week in a year, it shall be treated as deemed generation during this period and charges shall be applicable during disruption period. The deemed generation period shall be 50 hours in a year.

In the event that the Buying Entity fails to ensure adequate space for solar equipment to ensure that other structures do not partially or wholly shade any part of the Solar Power Plant and if such shading occurs, the SPD may apply for Deemed Generation furnishing the calculation for loss in generation due to such shading supported by the relevant data, which shall be approved by Buying Entity within one month of submission failing which the SPD shall claim provisional deemed generation till the issue is finally settled.

- d) SPD is required to seek the consent in indemnity bond from roof owner as per the format annexed as **Annexure-C** prior to installation of rooftop plant.

## **6 Delivery of Solar Power**

### **6.1 Purchase Requirement**

Buying Entity agrees to purchase one hundred percent (100%) of the Solar Power generated by the System and made available by the SPD to Buying Entity at the Delivery Point during each relevant month of the Term. In the event that the Buying Entity is unable to offtake 100% of the electricity generated, when it is generated, then Deemed Generation will apply. Moreover, Deemed Generation shall also be applicable: (a) if any part of the capacity of the Solar Power Plant is unable to operate at full capacity due to non-availability of load, subjected to furnishing of documentary evidence in support of the same; or (b) in the event SPD is generating power more than the available load, and the Buying Entity is not able to export or record the excess units generated due to faults in the equipments of Buying Entity e.g., Net meter Cables, Equipments etc., which may stop the feeding/record of the Solar Power generated.

### **6.2 Right to Contracted Capacity and Energy**

The SPD will be allowed to revise the CUF of the Project once within first year after COD.

Subsequent to commissioning of the Project, if for any Contract Year, except for the Contract Year ending on 31st March immediately after COD of the Project, it is found that the SPD has not been able to supply minimum energy of .....Million kWh (MU) till the end of 10 years from the SCD and ..... Million kWh (MU) for the rest of the Term of the Agreement, on account of reasons solely attributable to the SPD, the noncompliance by SPD shall make the SPD liable to pay the compensation which shall be calculated as 50% of the PPA tariff, for the shortfall in energy terms. This compensation shall not be applicable in events of Force Majeure identified under this Agreement affecting supply of Solar Power by SPD

### **6.3 Suspension of Delivery**

SPD shall be entitled to suspend delivery of electricity from the System to the Delivery Point for the purpose of maintaining and repairing the System upon giving one week's advance written notice to the Buying Entity, except in the case of emergency repairs. Such suspension of Service shall not constitute a breach of this Agreement, provided that the SPD shall use commercially reasonable efforts to minimize any interruption in service to the Buying Entity. However, any preventive maintenance shall be done only during the period when Plant is not generating.

### **6.4 Title to the System**

Throughout the duration of the Agreement, SPD shall be the legal and beneficial owner of the System at all times, and the System shall remain the personal property of the SPD and shall not attach to or be deemed a part of, or fixture to, the Premises.

Buying Entity covenants that it will use its best efforts to place all parties having an interest in or lien or encumbrance upon the real property comprising the Premises on notice of the ownership of the System and the legal status the System as the personal property of the SPD. If there is any mortgage or other security interest created or granted upon the Premises which could reasonably be construed as attaching to the System as a fixture of the Premises, Buying Entity shall procure, at the SPD's request, a release from such lien holders.

## **7 Tariff and Payment**

**7.1** The SPD shall be entitled to receive the Tariff of Rs. \_\_\_\_/kWh [Insert the Tariff discovered through the bidding process conducted by SECI], fixed for the entire term of this Agreement.

**7.2** Tariff discovered through the bidding process shall require adoption and approval by JERC.



### 7.3 Consideration

Buying Entity shall pay to the SPD a monthly payment (the “**Solar Power Payment**”) for the Solar Power generated by the System as per the Metering clause 5.2 (b) above during each calendar month of the Term equal to the Actual Monthly Production as recorded in online fetched Meter Reading Report for the System for the relevant month multiplied by the Tariff irrespective of (i) whether any or all units of Solar Power has been drawn, consumed or utilized by Buying Entity and / or (ii) whether any Solar Power has been injected, whether inadvertently or otherwise, into the grid of the Distribution Utility.

The SPD will bill the Buying Entity for each kWh metered as above at the Delivery Point, at the Tariff of Rs. \_\_\_\_/kWh.

### 7.4 Invoice

SPD shall invoice Buying Entity on the first day of each month (each, an “**Invoice Date**”) commencing on the first Invoice Date to occur after the Commercial Operation Date, for the Solar Power Payment in respect of the immediately preceding month. The last invoice shall include production only through the Expiration Date of this Agreement.

### 7.5 The invoice to the Buying Entity shall include:

- (a) the Solar Power calculations for the relevant billing period;
- (b) supporting data, documents and calculations in accordance with this Agreement.

### 7.6 Time of payment

Buying Entity shall pay all amounts due hereunder within sixty (60) days after the date of the receipt of the invoice at Buying Entity’s office (“**Due Date**”).

### 7.7 Method of Payment

Buying Entity shall make all payments under the Agreement by cheque/ demand draft/ electronic funds transfer in immediately available funds to the account designated by the SPD from time to time. All payments made hereunder shall be non-refundable, subject to the applicable tax deduction at source, and be made free and clear of any other tax, levy, assessment, duties or other charges and not subject to reduction, set-off, or adjustment of any kind. If the Buying Entity deducts any tax at source, the Buying Entity will issue a tax credit certificates as per law.

## **7.8 Late Payment**

In case payment of any Invoice is delayed by the Buying Entity beyond its Due Date, a late payment surcharge shall be payable by Buying Entity to the SPD at the rate of 1% per month (“**Late Payment Surcharge**”) calculated on the amount of outstanding payment, calculated on a day-to-day basis for each day of the delay, compounded on monthly rates. Late Payment Surcharge shall be claimed by the SPD through its subsequent Invoice.

## **7.9 Disputed Payments**

In the event that the Buying Entity disputes an Invoice, it shall give notice of such a dispute within 15 days of receiving the Invoice setting out details of the disputed amount. The Buying Entity shall pay by the Due Date 100% of any undisputed amount and in case the Invoice is disputed, the Buying Entity shall pay an amount based on average consumption of last three consecutive undisputed Invoices. Amount so recovered shall be subject to final adjustment on resolution of the dispute. Thereafter, the Parties shall discuss and try to resolve the disputed amount within a week of receipt of such notice of dispute. If the Parties resolve the dispute, an appropriate adjustment shall be made in the next Invoice. If the dispute has not been resolved by the date of the next Invoice the dispute shall be referred to the next higher authority in field formations (Frontier Headquarter/Sector Headquarter) to resolve the dispute within sixty (60) days. If the dispute is still not resolved by the next following Invoice it shall be referred to Arbitration.

## **8 General Covenants**

### **8.1 SPD’s Covenants**

The SPD covenants and agrees to the following:

- (a) Notice of Damage or Emergency: The SPD shall (a) promptly notify Buying Entity if it becomes aware of any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System, (b) immediately notify Buying Entity once it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises.
- (b) System Condition: The SPD shall take all actions reasonably necessary to ensure that the System is capable of providing Solar Power at a commercially reasonable continuous rate. Subject to there being no Buying Entity Default, the SPD shall provide 24 x 7 onsite / offsite

monitoring and maintenance of the System throughout the period of this agreement at no additional cost.

- (c) Governmental Approvals: While providing the Installation work, Solar Power and System Operations, the SPD shall obtain and maintain and secure all Governmental Approval required to be obtained and maintained and secured by the SPD and to enable the SPD to perform such obligations.
- (d) The interconnection of the rooftop solar system with the network of the distribution licensee shall be made as per the technical standards for connectivity of distributed generated resources regulations as may be notified by the competent authority. The interconnection of the rooftop solar system shall be as per the contracted load and/ or respective voltage level applicable to the Buying Entity as per the provisions of the guidelines issued by the competent authority.
- (e) Health and Safety: The SPD shall take all necessary and reasonable safety precautions with respect to providing the Installation Work, Solar Power, and System Operations that shall comply with all Applicable Laws pertaining to the health and safety of persons and real and personal property.

## **8.2 SPD's Representatives**

During the subsistence of this Agreement, the SPD undertakes to respond to all questions, concerns and complaints of the Buying Entity regarding the System in a prompt and efficient manner. The SPD designates the following individual as its representative pertaining to performance of this Agreement till the COD:

Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

SPD designates the following individual(s) as its representative and primary point of contact pertaining to performance of this Agreement following the Commercial Operation Date till termination:

Name: \_\_\_\_\_

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

### 8.3 Buying Entity's Covenants

Buying Entity covenants and agrees to the following:

- (a) Notice of Damage or Emergency: (a) The SPD shall make arrangements of identifying any damage to or loss of the use of the System or that could reasonably be expected to adversely affect the System, in the routine visit or during meter reading inspections; (b) Buying Entity shall immediately notify the SPD once it becomes aware of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises.
- (b) Liens: Buying Entity shall not directly or indirectly cause, create, incur, assume, or suffer to exist any Liens on or with respect to the System or any interest therein. If Buying Entity breaches its obligations under this Clause, it shall immediately notify the SPD in writing, shall promptly cause such Lien to be discharged and released of record without any cost to the SPD, and shall indemnify the SPD against all costs and expenses (including reasonable attorneys' fees and court costs) incurred in discharging and releasing such Lien.
- (c) Consents and Approvals: Buying Entity shall ensure that any authorizations required of Buying Entity under this Agreement, including those required for installation of System at the Premises and to draw/ consume Solar Power, are provided in a timely manner. The Buying Entity shall cooperate with the SPD to obtain such approvals, permits, rebates or other financial incentives.
- (d) Access to Premises, Grant of License: Grant of consent taken in indemnity bond from house roof owner as per the format **Annexure-C** shall be provided Buying entity to the SPD. With this consent, Buying Entity hereby grants to the SPD a license co-terminus with the Term, containing all the rights necessary for the SPD to use and occupy portions of the Premises for the installation, operation and maintenance of the System pursuant to the terms of this Agreement, including ingress and egress rights to the Premises for the SPD and its employees and its authorized representatives and access to electrical panels and conduits to interconnect or disconnect the System with the Premises' electrical wiring with the consent and approval of the Buying Entity's authorized representative identified by the Buying Entity. Photo IDs will be provided by the SPD. Buying Entity will assist in availing permissions to the site.
- (e) Security: Buying Entity shall be responsible for maintaining the physical security of the

Premises. In spite of these measures, if any damages to the System takes place due to theft or vandalism then the same shall be claimed or reimbursed through insurances by SPD. In case of theft and vandalism acts, the Buying Entity will assist the SPD in procedures of filing FIRs, insurance claims and any other related activities. Whenever, the damages to the System occurs, whoever responsible for equipment damage shall pay the damage charges and a severity level will be decided, which will further decide the duration offered to the SPD to correct the damage, and no amount will be paid to the SPD for such a period. SPD shall be entitled to any insurance proceeds received for damages in this clause. Buying Entity will not conduct activities on, in or about the Premises that have a reasonable likelihood of causing damage, impairment or otherwise adversely affecting the System. If System is damaged due to any such activity or through any other agency contracted by the Buying Entity directly or indirectly, such damage will be borne by the Buying Entity.

- (f) Regardless of whether Buying Entity is owner of the Premises or leases the Premises from a landlord, Buying Entity hereby covenants that (a) the SPD shall have access to the Premises and System during the Term of this Agreement and for so long as needed after termination to remove the System pursuant to the applicable provisions herein, and (b) neither Buying Entity nor Buying Entity's landlord will interfere or handle any of the SPD's equipment or the System without written authorization from the SPD.
- (g) Temporary storage space during installation or removal: Buying Entity shall provide sufficient space at the Premises for the temporary storage and staging of tools, materials and equipment and for the parking of construction crew vehicles and temporary construction trailers and facilities reasonably necessary during the Installation Work, System Operations or System removal, and access for rigging and material handling.
- (h) Sunlight Easements: Buying Entity will take all reasonable actions as necessary to prevent other buildings, structures or flora from overshadowing or otherwise blocking access of sunlight to the System, including but not limited to such actions as may be reasonably necessary to obtain a solar access easement for such purpose.
- (i) Evacuation: Buying Entity shall offtake 100% of the Solar Power generated from the Delivery Point, and pay all Invoices raised by the SPD under this Agreement by the Due Date and pay interest on delayed payments, if any, as per this Agreement.

- (j) Water: Expense of water shall be borne by SPD as per the approved rates of Govt. of India, at a given point as per the requirements of the SPD, for periodic cleaning of the solar panels.
- (k) Auxiliary Power: Buying Entity shall provide sufficient auxiliary power to the SPD for the maintenance and operation of its system, if available and possible, at the rate Buying Entity is paying to the DISCOM.
- (l) Relocation: If one or more of the Solar Power Plant panels needs to be temporarily moved or its generation suspended, for any other reason requested by the Buying Entity, the Buying Entity will be responsible for pre-agreed costs on actuals only, arising from moving, disassembling and re-installing/ commissioning the Solar Power Plant, as agreed between the Parties. SPD will be responsible for providing detailed documentary proof of the actual pre-agreed costs borne for such relocation/disassembling. Within 60 days of these satisfactory documents being provided by the SPD, the Buying Entity shall reimburse these pre-agreed expenses in full, and delayed payment beyond the date mentioned above will attract Late Payment charges as described in Clause 7.7. During any interruption in generation during such relocation, the Buying Entity will continue to be billed as per Deemed Generation, during the period of interruption, for the affected Solar Power Plant(s).

## **9 Representations & Warranties**

### **9.1 Representations and Warranties Relating to Agreement Validity**

In addition to any other representations and warranties contained in the Agreement, each Party represent and warrants to the other that:

- (a) It is duly organized and validly existing and in good standing in the jurisdiction of its incorporation;
- (b) It has the full right and authority to enter into, execute, deliver, and perform its obligations under the Agreement.
- (c) It has taken all requisite corporate or other action to approve the execution, delivery, and performance of the Agreement;
- (d) The Agreement constitutes its legal, valid and binding obligation enforceable against such Party in accordance with its terms;

- (e) There is no litigation, action, proceeding or investigation pending or, to the best of its knowledge, threatened before any court or other Governmental Authority by, against, affecting or involving any of its business or assets that could reasonably be expected to adversely affect its ability to carry out the transactions contemplated herein; and
- (f) Its execution and performance of the Agreement and the transactions contemplated hereby do not constitute a breach of any term or provision of, or a default under, (i) any contract or agreement to which it or any of its Affiliates is a party or by which it or any of its Affiliates or its or their property is bound, (ii) its organizational documents, or (iii) any Applicable Laws.

## **9.2 Representations Regarding Security Interest**

Buying Entity has been advised that part of the collateral securing the financial arrangements for the System may be the granting of a first priority perfected security interest (the “**Security Interest**”) in the System to a Financing Party. Alternatively, the SPD may assign all its rights and liabilities under this Agreement to a Financing Party under intimation to the Buying Entity, such that the Financing Party becomes the owner of the System. In connection therewith, Buying Entity represents and warrants as follows:

- (a) Buying Entity is aware of no existing lease, mortgage, security interest or other interest in or lien upon the Premises that could attach to the System as an interest adverse to the SPD’s Financing Party’s Security Interest therein.
- (b) Buying Entity shall extend all co-operation necessary to the extent required to enable the SPD to assign its rights and liabilities to a Financing Party, in the event the SPD chooses to do so.

Any Financing Party shall be an intended third-party beneficiary of this Section 9.2.

## **10 Not used**

## **11 Force Majeure**

### **11.1 Definition**

“**Force Majeure Event**” means any act or event that prevents the affected Party from performing its obligation in accordance with the Agreement, if such act or event is beyond the reasonable control of the affected Party and such Party had been unable to overcome such act or event

with the exercise of due diligence (including the expenditure of reasonable sums). Subject to the foregoing conditions, "Force Majeure Event" shall include without limitation the following acts or events: (i) natural phenomena, such as storms, hurricanes, floods, lightning, volcanic eruptions and earthquakes; (ii) explosions or fires arising from lighting or other causes unrelated to the acts or omissions of the Party seeking to be excused from performance; (iii) acts of war or public disorders, civil disturbances, riots, insurrection, sabotage, epidemic, terrorist acts, or rebellion. A Force Majeure Event shall not be based on the economic hardship of either Party. In case of any damage because of force majeure event, the System shall be repaired / commissioned at its own cost by the SPD.

**11.2 Excused Performance:** Except as otherwise specifically provided in the Agreement, neither Party shall be considered in breach of the Agreement or liable for any delay or failure to comply with the Agreement (other than the failure to pay the amounts due hereunder), if and to the extent that such delay or failure is attributable to the occurrence of a Force Majeure Event; provided that the Party claiming relief under this Section 11 shall immediately (i) notify the other Party in writing of the existence of the Force Majeure Event, (ii) exercise all reasonable efforts necessary to minimize delay caused by such Force Majeure Event, (iii) notify the other Party in writing of the cessation or termination of said Force Majeure Event and (iv) resume performance of its obligations hereunder as soon as practicable thereafter; provided, however, that Buying Entity shall not be excused from making any payments and paying any unpaid amounts due in respect of Solar Power delivered to Buying Entity prior to the Force Majeure Event performance interruption.

### **11.3 Termination as a Consequence of Force Majeure Event**

If a Force Majeure Event shall have occurred that has affected the SPD's performance of its obligations hereunder and that has continued for a continuous period of one hundred eighty (180) days, then Buying Entity shall be entitled to terminate the Agreement upon ninety (90) days' prior written notice to the SPD. If at the end of such ninety (90) day period such Force Majeure Event shall still continue, the Agreement shall automatically terminate. Upon such termination for a Force Majeure Event, neither Party shall have any liability to the other (other than any such liabilities that have accrued prior to such termination), and the provisions of Section 3.2 (Purchase Option) shall be inapplicable.



## 12 Default

### 12.1 SPD Defaults and Buying Entity Remedies

(a) **SPD Defaults:** The following events shall be defaults with respect to the SPD (each, an "**SPD Default**").

- (i) An Insolvency Event shall have occurred with respect to the SPD;
- (ii) Failure to achieve Commissioning of the System within the period as per RfS document; and
- (iii) SPD breaches any material term of the Agreement and (A) if such breach can be cured within sixty (60) days after Buying Entity's written notice of such breach and the SPD fails to cure the same, or (B) the SPD fails to commence and pursue a cure within such sixty (60) days period if a longer cure period is needed.

(b) **Buying Entity's Remedies:**

- (i) If a SPD Default described in Section 12.1 (a) has occurred and is continuing, in addition to other remedies expressly provided herein, and subject to Section 13, Buying Entity shall have a right to deliver a notice to the SPD, with a copy to the representative of the lenders to the SPD with whom the SPD has executed the Financing Agreements, stating its intention to terminate this Agreement ("**Buying Entity Preliminary Default Notice**"), which shall specify in reasonable detail, the circumstances giving rise to the issue of such notice.
- (ii) Upon the occurrence and continuation of SPD Default and the failure by the SPD to cure such default within the applicable cure period specified in this Article, the Lenders shall have the right to seek substitution of the SPD by a Selectee for the residual period of this Agreement for the purpose of performing the obligations of the SPD. Such substitution of the SPD by a Selectee shall be as per the procedure prescribed in Schedule IV to this Agreement.
- (iii) In the event the Lender's total debt obligations have been completely satisfied at the time of issue of Buying Entity's Preliminary Default Notice and upon the occurrence and continuation of SPD Default and the failure by the SPD to cure such default within the applicable cure period specified in this Article, the Buying Entity may terminate this Agreement by serving a fifteen (15) days' notice to the SPD ("**Buying Entity Termination Notice**").

- (iv) Following the issue of Buying Entity Preliminary Default Notice, it shall be the responsibility of the Parties to discuss as to what steps shall be taken with a view to mitigate the consequences of the relevant SPD's Default having regard to all the circumstances. If the SPD Default is not cured within a period of sixty (60) days of the issue of Buying Entity Preliminary Default Notice or any other such period mutually agreed upon by the Parties, the Buying Entity shall have the right to terminate this Agreement by issuing a Buying Entity Termination Notice.
- (v) Upon the delivery of the Buying Entity Termination Notice, this Agreement shall stand terminated. SPD shall have the liability to make payment within sixty (60) days from the date of Buying Entity Termination Notice to Buying Entity, for damages, equivalent to 6 (six) months, or balance PPA period, whichever is less, of charges for its Contracted Capacity. Buying Entity shall have the right to recover the said damages by way of forfeiture of bank guarantee, if any, without prejudice to resorting to any other legal course or remedy. In addition to the levy of damages as aforesaid, the lenders in concurrence with the Buying Entity, may exercise their rights, if any, under Financing Agreements, to seek substitution of the SPD by a selectee for the residual period of the Agreement, for the purpose of securing the payments of the total debt amount from the SPD and performing obligations of the SPD. However, in the event the lenders are unable to substitute the defaulting SPD within the stipulated period, the PPA shall stand terminated and the lenders may exercise their mortgage rights and liquidate the Project assets. Provided that any substitution under this Agreement can only be made with the prior consent of Buying Entity including the condition that the selectee meets the eligibility requirements of RfS issued by SECI and accepts the terms and conditions of this Agreement.
- (vi) if the SPD fails to remove the System from the Premises within one month from the date of termination, the Buying Entity shall be entitled to dispose of the System in any manner it deems fit.
- (vii) The Buying Entity may exercise any other remedy it may have at law or equity or under the Agreement.

## **12.2 Buying Entity Defaults and SPD's Remedies**

- (a) Buying Entity Default: The following events shall be defaults with respect to Buying Entity (each, a "**Buying Entity Default**")

- (i) An Insolvency Event shall have occurred with respect to Buying Entity;
  - (ii) Buying Entity breaches any material term of the Agreement if (A) such breach can be cured within sixty (60) days after the SPD's notice of such breach and Buying Entity fails to so cure, or (B) Buying Entity fails to commence and pursue said cure within such sixty (60) day period if a longer cure period is needed; and
  - (iii) Buying Entity fails to pay the SPD any undisputed amount or, if the amount is disputed, an amount based on average consumption of last three consecutive undisputed Invoices to the SPD under Section 7.8 of this Agreement within sixty (60) days from receipt of notice from the SPD of such past due amount.
- (b) SPD's Remedies: If a Buying Entity Default described in Sections 12.2(a) has occurred and is continuing, in addition to other remedies expressly provided herein, and subject to Section 13, the SPD shall be entitled to terminate this Agreement by serving a fifteen (15) days' notice and upon such termination the SPD at its discretion require Buying Entity to pay to the SPD, 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 SPD. Upon the receipt of termination compensation as stipulated above, the SPD shall cause the title of the System transferred to the Buying Entity. Further to the above remedies, SPD may exercise any other remedy it may have at law or equity or under the Agreement.

### **13 Limitations of Liability**

- 13.1** Except as expressly provided herein, neither Party shall be liable to the other Party or its Indemnified Persons for any special, punitive, exemplary, indirect, or consequential damages, losses or damages for lost revenue or lost profits, whether foreseeable or not, arising out of, or in connection with the Agreement.
- 13.2** Subject to the provisions of the Agreement, the SPD shall be solely responsible for the manner in which its obligations under this Agreement are to be performed. All employees and representatives of the SPD, or contractors engaged by the SPD in connection with the performance of the Agreement shall be under the complete control of the SPD and shall not be deemed to be employees, representatives, contractors of the Buying Entity. Nothing contained in the Agreement or in any agreement or contract executed by the SPD shall be construed to create any contractual relationship between any such employees, representatives or contractors and the

Buying Entity.

- 13.3** Notwithstanding any liability or obligation that may arise under this Agreement, any loss, damage, liability, payment, obligation or expense which is insured or not or for which the Buying Entity can claim compensation under any insurance policy, shall not be charged to or payable by the Buying Entity.

## **14 Assignment & Novation**

- 14.1 Assignment:** Notwithstanding anything contained herein, the SPD has the right to assign all or any of its rights under this Agreement (including rights over any assets hereunder), to any third party including, though not restricted to any lender, equipment lessor or other party (“**Assignment**”), with the consent of the Buying Entity. The Buying Entity shall not unreasonably withhold such consent. In the event of such assignment, the Buying Entity will be able to hold the SPD as well as the party to whom the benefits under this contract are assigned, to be jointly and severally responsible for performing the obligations under this contract. Further, in the event of assignment, the Buying Entity agrees to make the payments due to the SPD under this agreement, directly to the assignee, upon receipt of such notice by the SPD. If the SPD were to sell the Solar Power Plant, then the new buyer(s) would need to abide by this Agreement. Further, the SPD reserves the right to assign whole or part of the assets to lenders/leasing companies. Buying Entity may assign its rights under this Agreement, without the prior consent of SPD, to an Affiliate or any successor in interest to Buying Entity, whether by way of merger, reorganization or sale of assets (including any sale of a line of business). This Agreement shall insure to the benefit of and be binding upon Buying Entity and its successors or assigns. However, any such actions as intended by the SPD under Article 14.1 and Article 14.2 shall be binding on Buying Entity, if there are zero material inconsistencies present in the contract provisions during the time of assignment/novation, else, it shall be construed as default in contract and appropriate actions shall be taken as deemed fit.

- 14.2 Novation:** The Parties agree and acknowledge that the SPD may intend to novate the Agreement to a party, and has the right to transfer any or all of its rights and obligations under this Agreement to a party or any other third party (“**New Party**”), with the consent of the Buying Entity. The Buying Entity shall not unreasonably withhold such consent. Upon Novation, the New Party shall automatically and without any further action be entitled to all the same rights and assume the same obligations, under this Agreement, as if it were originally a party to this Agreement. Further,

the Buying Entity hereby agrees and undertakes that, promptly upon receiving a request from the SPD, the Buying Entity shall execute such further writings, deeds and/or agreements and take all such further actions as may be necessary for effecting or implementing the transfer of any or all of the SPD's rights and/or obligations under this Agreement to the New Party. If the parties agree to do Novation then separate Novation agreement shall be executed.

### 14.3 Notices

Unless otherwise provided in the Agreement, all notices and communications concerning the Agreement shall be in writing and addressed to the Parties at the addresses set forth below:

SPD's address and contact details: \_\_\_\_\_

Buying Entity's address and contact details: \_\_\_\_\_

### 14.4 Notice

Unless otherwise provided herein, any notice provided for in the Agreement shall be hand delivered, sent by registered post, or by courier delivery, or transmitted by facsimile and shall be deemed delivered to the addressee or its office when received at the address for notice specified above when hand delivered or sent by courier delivery, upon posting if sent by registered post and upon confirmation of sending when sent by facsimile on the next Business Day.

## 15. Confidentiality

### 15.1 Confidentiality obligation

- (a) If the SPD provides confidential information, including business plans, strategies, financial information, proprietary, patented, licensed, copy righted or trademarked information, and / or technical information regarding the financing, design, operation and maintenance of the System ("**Confidential Information**") to Buying Entity or, if in the course of performing under the Agreement or negotiating the Agreement Buying Entity learns Confidential Information regarding the facilities or plans of the SPD, Buying Entity shall (a) protect the Confidential information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, except in the negotiation and performance of the Agreement. Notwithstanding the above, Buying Entity may provide such Confidential Information to its officers, directors, managers, employees and Affiliates (collectively, "**Representatives**"), in each case whose access is reasonably necessary for purposes of the Agreement. Each such recipient of Confidential

Information shall be informed by Buying Entity of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. Buying Entity shall be liable for any breach of this provision by any entity to whom it improperly discloses Confidential Information. All Confidential Information shall remain the property of the SPD and shall be returned to it after Buying Entity's need for it has expired or upon the request of the SPD.

- (b) If the Buying Entity provides confidential information, including business plans, strategies, financial information, proprietary, patented, licensed, copy righted or trademarked information, ("**Confidential Information**") to the SPD or, if in the course of performing under the Agreement or negotiating the Agreement the SPD learns Confidential Information regarding the facilities or plans of the Buying Entity, the SPD shall (a) protect the Confidential Information from disclosure to third parties with the same degree of care accorded its own confidential and proprietary information, and (b) refrain from using such Confidential Information, except in the negotiation and performance of the Agreement. Notwithstanding the above, the SPD may provide such Confidential Information to its officers, directors, managers, employees and Affiliates (collectively, "**Representatives**"), in each case whose access is reasonably necessary for purposes of the Agreement. Each such recipient of Confidential Information shall be informed by the SPD of its confidential nature and shall be directed to treat such information confidentially and shall agree to abide by these provisions. The SPD shall be liable for any breach, of this provision by any entity to whom it improperly discloses Confidential Information. All Confidential Information shall remain the property of the Buying Entity and shall be returned to it after the SPD's need for it has expired or upon the request of the Buying Entity.

## **15.2 Permitted Disclosures**

Notwithstanding any other provision contained herein, neither Party shall be required to hold confidential any information that:

- (a) becomes publicly available other than through the receiving Party;
- (b) is required to be disclosed under Applicable Law or pursuant to a validly issued notice or required filing, but a receiving Party subject to any such requirement shall promptly notify the disclosing Party of such requirement;
- (c) is independently developed by the receiving Party; or

- (d) becomes available to the receiving Party without restriction from a thirdparty under no obligation of confidentiality.

## **16 Indemnity**

### **16.1 SPD's Indemnity**

Subject to Section 13, the SPD agrees that it shall indemnify and hold harmless Buying Entity and its members, officers, employees, students, casual labourers, persons permitted to run any business or service, such as canteens, stores, photocopy units, banks, post office, courier service, hospital and to any lawful visitors (collectively, the "**Buying Entity Indemnified Parties**") from and against any and all Losses incurred by the Buying Entity Indemnified Parties to the extent arising from or out of the following any claim for or arising out of any injury to or death of any Person or loss or damage to property of any Person to the extent arising out of the SPD's negligence or willful misconduct. The SPD shall not, however, be required to reimburse or indemnify any Buying Entity Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any Buying Entity Indemnified Party.

### **16.2 Buying Entity's Indemnity**

Subject to Section 13, Buying Entity agrees that it shall indemnify, defend and hold harmless the SPD, its permitted successors and assigns and their respective directors, officers, employees, contractors, sub-contractors, and agents (collectively, the "**SPD Indemnified Parties**") from and against any and all Losses incurred by the SPD Indemnified Parties to the extent arising from or out of any claim for or arising out of any injury to or death or any Person or loss or damage to property of any Person to the extent arising out of Buying Entity's negligence or willful misconduct. Buying Entity shall not, however, be required to reimburse or indemnify any SPD Indemnified Party for any Loss to the extent such Loss is due to the negligence or willful misconduct of any SPD Indemnified Party.

## **17. Miscellaneous**

### **17.1 Amendments**

This Agreement may only be amended, modified or, supplemented by an instrument in writing executed by duly authorized representatives of the SPD and Buying Entity.

### **17.2 Goodwill and Publicity**

Neither Party shall use any name, trade name, service mark or trademark of the other Party in any promotional or advertising material without the prior written consent of such other Party. The Parties shall coordinate and cooperate with each other when making public announcements related to the execution and existence of this Agreement, and each Party shall have the right to promptly review, comment upon and approve any publicity materials, press releases and other public statements by the other Party that refer to, or that describe any aspect of, this Agreement; provided that no such publicity releases or other public statements (except for filings or other statements or releases as may be required by applicable law) shall be made by either Party without the prior written consent of the other Party. Without limiting the generality of the foregoing and whether or not the consent of the other Party is required or obtained, all public statements must accurately reflect the rights and obligations of the Parties under this Agreement.

### **17.3 Industry Standards**

Except as otherwise set forth herein, for the purpose of the Agreement, the normal standards of performance within the solar photovoltaic power generation Industry in the relevant market shall be the measure of whether a Party's performance is reasonable and timely. Unless expressly defined herein, words having well-known technical or trade meanings shall be so construed.

### **17.4 Cumulative Remedies**

Except as set forth to the contrary herein, any right or remedy of the SPD or Buying Entity shall be cumulative and without prejudice to any other right or remedy.

### **17.5 Sovereign Immunity**

To the extent permitted by Applicable Law, Buying Entity hereby waives any defense of sovereign immunity that Buying Entity might otherwise have in connection with any action taken by the SPD to enforce its rights against Buying Entity under this Agreement.

### **17.6 No Waiver**

The failure of the SPD or Buying Entity to enforce any of the provisions of the Agreement, or the waiver thereof, shall not be construed as a general waiver or relinquishment on its part of any such provision, in any other instance or of any other provision in any instance.

### **17.7 Survival**



The obligations under Sections 3.2 (Purchase Option), Section 8.1(c) (SPD's Covenant), Sections 8.3(d), (e), (f) and (g) (Buying Entity's Covenants), Section 10 (Taxes and Governmental Fees), Section 13 (Limitation of Liability) Section 14.4 (Notices), Section 15 (Confidentiality), or pursuant to other provisions of this Agreement that, by their nature and context, are intended to survive termination of this Agreement shall survive the expiration or termination of this Agreement for any reason.

## **17.8 Governing Law & Jurisdiction**

- (a) This Agreement shall be governed by and construed in accordance with the laws of India. The Parties agree that the courts in \_\_\_\_\_ shall have jurisdiction over any action or proceeding arising under the Agreement.
- (b) In the event of any Dispute, difference of opinion or dispute or claim arising out of or relating to this Agreement or breach, termination or the invalidity thereof, shall firstly be attempted to be resolved by conciliation.
- (c) All Disputes relating to this Agreement or any issue whether arising during or after the completion thereof or any matter directly or indirectly connected with this Agreement shall in the first place be referred to a sole conciliator appointed/ nominated by Buying Entity on receipt of such requests from either party. The conciliator shall make the settlement agreement after the Parties reach agreement and shall give an authenticated copy thereof to each of the Parties.
- (d) The settlement agreement shall be final and binding on the Parties. The settlement agreement shall have the same status and effect of an arbitration award. The views expressed or the suggestions made or the admissions made by either Party in the course of conciliation proceedings shall not be introduced as evidence in any arbitration proceedings.
- (e) Any Dispute that cannot be settled through conciliation procedure shall be referred to arbitration in accordance with the procedure given below. The Parties agree to comply with the awards resulting from arbitration and waive their rights to any form of appeal insofar as such waiver can validly be made. Cost of conciliation shall be equally shared by both the parties.
- (f) **Arbitration Procedure:**
  - (i) **Appointment of Arbitrator shall be ordered by Hon'ble LG, A&N Islands.**

- (ii) If the efforts to resolve all or any of the Disputes through conciliation fails, then such disputes shall be referred to a sole arbitrator if the total value of the claim is up to Rs. 50 Lakhs; and to a panel of three arbitrators if total value of claims is more than Rs. 50 Lakhs. For this purpose, Hon'ble LG, A&N Islands will make out a panel of three person with the requisite qualification and professional experience relevant to the field to which the Agreement relates. The arbitrator(s) shall be appointed by Hon'ble LG, A&N Islands within a period of 30 days from the date of receipt of written notice/ demand of appointment of arbitrator from either Party.
- (iii) The venue of such arbitration shall be Port-Blair. The arbitral award shall be binding on both Parties. The cost of arbitration shall be equally shared by both Parties.
- (iv) The arbitration proceedings shall be governed by the Indian Arbitration and Conciliation Act, 1996, as amended from time to time including provisions in force at the time the reference is made.
- (g) During the dispute resolution period, both the Parties shall continue to perform their respective obligations as per provisions of the Agreement.
- (h) This Section 17.8 is severable from the rest of this Agreement and shall remain in effect even if this Agreement is terminated for any reason.

#### **17.9 Severability**

If any term, covenant or condition in the Agreement shall, to any extent, be invalid or unenforceable in any respect under Applicable Law, the remainder of the Agreement shall not be affected thereby, and each term, covenant or condition of the Agreement shall be valid and enforceable to the fullest extent permitted by Applicable Law and, if appropriate, such invalid or unenforceable provision shall be modified or replaced to give effect to the underlying intent of the Parties and to the intended economic benefits of the Parties.

#### **17.10 Successors and Assigns**

This Agreement and the rights and obligations under the Agreement shall be binding upon and shall inure to the benefit of the SPD and Buying Entity and their respective successors and permitted assigns.

#### **17.11 Counterparts**

This Agreement may be executed in one or more counterparts, all of which taken together shall

constitute one and the same instrument.

#### **17.12 Independent Service Provider**

This Agreement is on a principal to principal basis between the parties hereto. Nothing contained in this Agreement shall be construed or deemed to create any association, partnership or joint venture or employer-employee relationship or principal-agent relationship in any manner whatsoever between the Parties.

#### **17.13 Non-Exclusive Agreement**

This Agreement is on non-exclusive basis. The Buying Entity is free to engage any other service provider(s) or may entrust services similar to those provided by the SPD under this Agreement to any other person(s), provided the SPD's rights under this Agreement are not affected in any manner

#### **17.14 Insurance**

The SPD shall maintain at its own costs, throughout the tenure of this Agreement and any extensions thereof all mandatory insurance coverage for adequate amount including but not restricted to, comprehensive general liability insurance including theft and vandalism, covering the System and accidental losses, bodily harm, injury, death of all individuals employed/ assigned by the SPD to perform the services required under this Agreement.

#### **17.15 Sale or Transfer of Premises**

- (a) In the event the Buying Entity sells or transfers the Premises or the building housing the System, it shall give at least 90 days prior notice to the SPD and will ensure that this Agreement is transferred/ novated to transferee, without any interruption in payments. The Buying Entity shall also ensure that a clause to this effect, to the satisfaction of the SPD, is incorporated in the transfer documents between itself and the transferee. The Buying Entity shall not sell or otherwise transfer the Premises if the transferee fails to accept the terms and conditions of this Agreement for the remainder of the Term.
- (b) If either the Buying Entity or the SPD merges with any other entity, the terms of this Agreement shall continue to be binding upon the merged entity.

#### **17.16 Entire Agreement**

This Agreement constitutes the entire agreement between the Parties hereto with respect to the subject matter of this Agreement and supersedes all prior agreements and undertakings, written or oral, with respect to the subject matter hereof except as otherwise expressly provided herein. The Schedules annexed to this Agreement also form a part of this Agreement.

**17.17** Annual accounts reconciliation shall be conducted annually between the SPD and Buying Entity.

IN WITNESS WHEREOF the Parties have caused the Agreement to be duly executed through their duly authorized representatives as of the date set forth above.

**FOR & ON BEHALF OF BUYING ENTITY    FOR & ON BEHALF OF SPD**

Signature:	Signature:
Name:	Name:
Designation:	Designation:

**WITNESSES**

1)    Signature:  
      Name:  
      Designation:

**WITNESSES**

1)    Signature:  
      Name:  
      Designation:

2)    Signature:  
      Name:  
      Designation:

2)    Signature  
      Name  
      Designation

## **SCHEDULE-I: PREMISIS**

### **1. Description of the Premises: \_\_\_\_\_**

Premises Overview	
Segment	
Type of Roof	
Hours of Operation	
Security	

### **2. Description of the System: \_\_\_\_\_**

The key features of the System are as follows:

<b>S. No.</b>	<b>Parameter</b>	<b>Value</b>
1	System Size	___ kWp
2	Expected Annual Energy Generation	
3	Module Type	
4	Inverter Type & Rating	
5	Electrical Parameter for interconnection	
6	Mounting type	
7	Surface Azimuth Angle	
8	Tilt Angle	
9	Wind Resistance	

SPD shall provide an online monitoring system to the Buying Entity that will enable easy access to Solar Power information.

## **SCHEDULE II: GOVERNMENT APPROVALS**

1. To be obtained by the SPD

All approvals including approvals/consents required under local regulations, building codes and approvals required from the Distribution Utility etc. relating to installation and operation of the System (including the government incentives/subsidies available for the project) and generation and supply of solar power from the Project.

2. To be obtained by Buying Entity

Any authorizations required of Buying Entity, including those required for installation of system at the premises. Permissions and coordination with DISCOM or any related organization for Net Metering. Buying Entity will apply for net metering and bear the cost of net meter only.

**SCHEDULE III: RfS**



## **SCHEDULE IV: SUBSTITUTION RIGHTS OF THE LENDER**

### **1. Substitution of the SPD**

The Lender may seek to exercise right of substitution by an amendment or novation of the Agreement executed between SPD and Buying Entity in favour of the Selectee. The Buying Entity and the SPD shall cooperate with the Lender to carry out such substitution.

### **2. Substitution Notice**

Upon the occurrence and continuation of SPD Default and the failure by the SPD to cure such default within the applicable cure period specified in this Article, the Lender, upon receipt of a written advice from the Buying Entity confirming such failure, shall be entitled to notify the Parties of the intention of the Lender to substitute the SPD by the Selectee for the residual period of this Agreement (the “Substitution Notice”).

### **3. Interim Operation of Project**

- (a) On receipt of a Substitution Notice, no further action shall be taken by any Party to terminate this Agreement, except under and in accordance with the terms of this Schedule IV of this Agreement.
- (b) On issue of a Substitution Notice, the Lender shall have the right to request the Buying Entity to enter upon and takeover the Project for the interim and till the substitution of the Selectee is complete and to otherwise take all such steps as are necessary for the continued operation and maintenance of the Project, and the SPD shall completely cooperate in any such takeover of the Project by the Buying Entity.
- (c) If the Buying Entity refuses to take over the Project on request by the Lender in accordance with clause 3(b) above, SPD shall have the duty and obligation to continue to operate the Project in accordance with this Agreement till such time as the Selectee is finally substituted.
- (d) The Lender and the Buying Entity shall, simultaneously have the right to commence the process of substitution of the SPD by the Selectee in accordance with these terms, and the SPD hereby irrevocably consents to the same.

### **4. Process of Substitution of SPD**

- (a) The Lender may, on delivery of a Substitution Notice notify the Buying Entity and the SPD about the Lender's decision to invite and negotiate, at the cost of the Lender, offers from third parties to act as Selectee, either through private negotiations or public auction and/or a tender process, for the residual period of this Agreement. Subject to and upon approval of the Buying Entity, such Selectee shall be entitled to receive all the rights of the SPD and shall undertake all the obligations of the SPD under this Agreement and any other Project documents executed between the SPD and the Buying Entity, in accordance with these terms of substitution.
- (b) Upon the Buying Entity approving the Selectee, the SPD shall transfer absolutely and irrevocably, the ownership of the Project to such Selectee simultaneously with the amendment or novation of this Agreement and other Project documents executed between the SPD and Buying Entity in favour of the Selectee.

## **ANNEXURE-A: CHECKLIST FOR PROJECT COMMISSIONING**

### **Commissioning Report**

<b>Project Commissioning Report</b>			
<b>Date of Commissioning:</b>			
<b>A</b>	Name of the Successful Vendor:		
<b>B</b>	Name of the Building Department / Organization:		
<b>C</b>	Address of SPV power plant installed:		
<b>D</b>	Meter Consumer Number: (Electricity bill copy to be attached)		
S. No.	Component	Details	Remarks
<b>1</b>	Installed Project capacity in (kWp)		
<b>2</b>	Whether the system is installed in shadow free area or not? If not mention the details.	(Photograph Attached)	
<b>3</b>	PV modules as per latest ALMM list	1- Undertaking from vendor with Serial Nos.- 2- Invoice copy of modules- 3- Delivery challan of modules / optional	
<b>4</b>	Type, Make and year of manufacturing of Modules		
<b>5</b>	Each Module data sheet (flash test) Rated power output having tolerance within + 3%	Attached	
<b>6</b>	PV module qualification test standard (IEC 61215/IS14286 / IEC 61730 / IEC 61701/IS 61701 (for highly corrosive atmosphere)	Document attached	
<b>7</b>	Wattage of each module and Total No. of modules		
<b>8</b>	Low voltage bypass diodes		
<b>9</b>	Minimum wattages of modules in plant greater than 300 or not?		

10	I-V curve of modules @STC	Documents attached	
11	Module RF identification tag (Inside /outside lamination)		
12	Whether the modules contain information about company name, serial no and year manufacturing etc.	(RFID information attached)	
13	Warranty Certificates (Material Warranty/ Performance Warranty) signed and stamped by bidders	Documents attached	
14	Gap between rows of the modules		
15	Tilt Angle of Modules		
16	Protection class of Junction box of modules (IP- 65)	(Documents attached)	
<b>ARRAY STRUCTURE</b>			
17	Material of structure	Hot dip galvanized MS / Steel (IS 2062: 1992) / Aluminium  1- Material test report as per IS-. Attached	
18	Galvanisation of mounting structure as per IS 4759		
19	Galvanisation thickness of mounting structure	1- Documents attached. 2- Galvanisation test report as per IS-.	
20	Wind load calculation sheet for wind zone of the location	Documents attached-.	
21	MMS Design certified by a recognized Lab/ Institution		
22	Material of fasteners (Stainless steel)		
23	Load bearing capacity of the roof	Ok	

24	Minimum clearance of the structure from the roof	400 mm	
<b>PCU/ Inverter</b>			
25	Guaranteed Technical Particulars for PCU/ Inverter	(Documents attached)	
26	Make, rating of each inverter & No. of Inverters (AC capacity of inverter)		
27	Combined Rated wattage of all inverters in Plant (Total AC rating)		
28	MPPT is integrated in the PCU/inverter		
29	Year(s) of manufacturing of inverters		
30	Switching devices, inverter datasheet	Attached	
31	Protection of Enclosure (IP) and Location of Inverters (outdoor/indoor)	IP-65	
32	Phase of inverter	3 Phase	
33	Whether solar PV plant is synchronized with grid		
34	Inverter standard codes IEC 61683/IS 61683, IEC 60068-2(1, 2, 14, 30) /Equivalent BIS Std.		
35	MPPT standard codes IEC 60068-2(1, 2, 14, 30)/Equivalent BIS std		
36	Anti- Islanding (IEEE 1547/UL1741/IEC 62116)		
<b>For Plants &gt;100 KW</b>			
37	Is Galvanic Isolation provided in the Inverters?	NA	
38	Is separate isolation transformer provided	NA	

<b>DCDB /Junction Boxes (if required)</b>			
<b>39</b>	GTP of JB (duly signed by bidder and manufacturer)	NA	
<b>40</b>	IP protection (Level)	NA	
<b>41</b>	Bus bar material of DCDB	NA	
<b>42</b>	MCB/MCCB installed	NA	
<b>43</b>	Surge arrester, SPDS	NA	
<b>44</b>	Material of sheet and thickness	NA	
<b>45</b>	Test report of DCDB	NA	
<b>46</b>	Height of junction box	NA	
<b>47</b>	Gland's type	NA	
<b>48</b>	JB Earthing provision	NA	
<b>AC DISTRIBUTION PANEL BOARD/ LT Panel</b>			
<b>49</b>	All switches and the circuit breakers, connectors standards (IEC 60947, part I, II and III/ IS60947 part I, II and III)		
<b>50</b>	IP protection (Minimum 54 or better)		
<b>51</b>	Material of LT panel and its details	CRCA Powdered Coated	
<b>52</b>	Change over switch	NO	
<b>53</b>	Lightning protection		
<b>54</b>	Surge protections		
<b>55</b>	Conform the Indian Electricity Act and rules (till last amendment)		
<b>56</b>	Height of LT panel from ground	450 mm	
<b>57</b>	Design and drawing	Attached	
<b>58</b>	Test report of ACDB	Attached	
<b>Lightening arrester</b>			
<b>59</b>	Lighting arrester installed	Documents Attached	

<b>Cables</b>			
<b>60</b>	Meets IEC 60227/IS 694, IEC 60502/IS1554 standards (or other as applicable)	Documents attached	
<b>61</b>	Cable dimension 1- Modules to inverters, length 2- Inverter to LT panels, length		
<b>62</b>	Material & Voltage drop DC cable (Modules to inverters)	Copper, Calculation sheet attached	
<b>63</b>	Material & Voltage drop AC cable (inverter to LT panel or T/F)	Copper, Calculation sheet attached	
<b>64</b>	Cable Routing/ Marking (GI cable tray and suitably tagged and marked with proper manner by good quality ferule)		
<b>Solar Plant Monitoring</b>			
<b>65</b>	Solar Irradiance sensor mounted on Plane of the array. (Optional)	Data sheet attached	
<b>66</b>	Pyranometer calibration certificate (Optional)	Attached	
<b>67</b>	Temperature sensor	Yes/No, Data sheet attached	
<b>68</b>	Software for future Centralized monitoring		
<b>69</b>	Monitoring mechanism for the installed system		
<b>Transformer (If required)</b>			
<b>70</b>	Transformer rating, Type etc.	NA	
<b>Miscellaneous</b>			
<b>71</b>	Earthing and protections (Array Structure, PCU, ACDB and DCDB) IS:3043-1987		
<b>72</b>	Earthing Resistance less than 5 ohms		
<b>73</b>	NOC from the Concerned DISCOM for the connectivity, technical feasibility, and synchronization of SPV plant	Document Attached	
<b>74</b>	Bidirectional meters installed (for net metering)		

75	Accuracy and burden of Meters	0.5	
76	List of requisite spares during warranty and Operation & Maintenance	Documents attached	
77	Danger boards and signages		
78	Fire extinguishers		
79	Sand buckets in the control room		
80	Tools & Tackles and spares		
81	O&M manual (2 sets)		
82	Display Board		
83	Material insurance at time of installation		
<b>Drawings at Site</b>			
84	Layout of solar Power Array As built drawing ( <b>A3 Sheet</b> )	Attached	
85	Shadow analysis of the roof	Attached	
86	Single line diagram of plant (SLD) <b>A3 sheet</b>	Attached	
87	Structural drawing along with foundation details for the structure ( <b>A3 Sheet</b> )	Attached	
88	Itemized bill of material for complete SPV plant covering all the components and associated accessories.	Attached	
89	Soft copy of final drawing		
90	Photographs of sites		
91	Any specific problem(s)		
92	Recommendations		



### **Format for Performance Ratio PR)**

“Performance Ratio” (PR) means the ratio of plant output versus installed plant capacity at any instance with respect to the radiation measured.

$$PR = \frac{\text{Measured Output in kW}}{\text{Installed capacity in kW} \times \text{Measured radiation intensity in kW/m}^2} \times 100$$

Parameters	Input value	Remarks, if any
Date and Time for PR measurement		
A) Installed Plant Capacity in kW		
B) Measured output in kW		
C) Measured radiation intensity in W/m <sup>2</sup>		
Performance Ratio (%) ( $\frac{B \times 1000}{A \times C} \times 100$ )		

### **Synchronization report of SRTPV system (Net / Gross metering)**

<b>A</b>	<b>Consumer Details</b>			
1	Name of the Consumer			
2	Category			
3	RR No./Account ID/Connection ID			
4	Pole Number			
<b>B</b>	<b>Meter Details</b>	<b>Bi-directional Meter</b>		<b>Existing meter</b>
		<b>Main Meter</b>	<b>Check Meter</b>	
1	Meter make: 1ph / 3 ph.			
2	Type			
3	Serial number			
4	Capacity			
5	Meter constant			
6	Initial reading (Tri vector parameters)			
	i) Import			

	ii) Export		
<p>Note:</p> <p>1. The Bi-directional meter records solar generation and existing meter records installationconsumption in case of Gross metering.</p> <p>2. The Bi-directional meter records export of solar energy to grid and import of energy by theinstallation. Existing meter records the total solar energy generated.</p>			
<b>C</b>	<b>Grid Tied Inverter</b>		
1	Make		
2	Serial number		
3	Capacity		
4	Input voltage		
5	Output voltage		
6	Whether Anti-islanding feature is in workingcondition	Yes/No	
<b>D</b>	<b>PV Module</b>		
1	Make		
2	Serial number		
3	Type of module		
4	Capacity of each module		
5	Number of modules		
6	Total capacity of module		
E	Earthing verified: DC earthing, AC earthing,LA earthing of SRTPV system	Yes/No	
F	Details of protective system available	<ul style="list-style-type: none"> <li>• AC &amp; DC DB: Yes/No</li> <li>• Manual Switch solar side: Yes/No</li> <li>• Relay operated automatic switch at net-meterside: Yes/No</li> </ul>	
G	DISCOM inspection & approval letterobtained	Yes/No	
H	Work completion report of SRTPVsystem obtained from agency	Yes/No	
I	Date of synchronizing with DISCOM grid	dd/mm/yyyy	

## Quality Inspection and Performance Assessment Report

S. No.	Parameters	Method/ Tools to use	Description
1.	Name of the system owner	MNRE list	
2.	System location (physical address)	MNRE list	
3.	Geo-spatial coordinates	Record by GPS at site	
4.	Type of consumer	Implementing Agency	As per category mentioned in the list provided by Discoms
5.	Sanctioned load	As per the electricity bill	
6.	Implementing company	SNA/Discoms	
7.	EPC company/installer	MNRE list	
8.	Date of installation	MNRE list	
9.	Date and time of PV inspection	Record	
10.	Total energy generated till the time of inspection	Check and record from Inverters	Check the inverter data. If there are multiple inverters, check all inverters and add to total
11.	Inverter Power at the time of inspection <input type="checkbox"/>	Check and record	Check the inverter data. If there are multiple inverters, check all inverters and add to total
12.	Irradiance at the time of inspection	Check and record	
13.	Temperature of inverter at the time of inspection	Check and record	Check the operating temperature of the inverter and check if cooling fan is working or ventilation is blocked for each inverter. Check for all inverters

☐ When inverter does not have a digital display, measure  $V_{mp}$  and  $I_{mp}$  at the inverter and record cell temperature at the time of measurement to calculate DC power.

### A. System Design and planning

#### a. Orientation

S. No.	Parameters	Method/ Tools to use	Findings
--------	------------	----------------------	----------

1.	Orientation and Tilt of the PV array	Inclinometer (mobile app) Compass	<ul style="list-style-type: none"> <li>• Tilt:</li> <li>• Orientation:</li> </ul>
2.	Is PV array free from shadow	Use SunPath finder Camera	<ul style="list-style-type: none"> <li>• Location affected by shadow:</li> <li>• Object creating shadow:</li> <li>• Months of shadow:</li> <li>• Time of shadow:</li> </ul>
3.	Measure Inter-row spacing	Measuring tape	<ul style="list-style-type: none"> <li>• Distance between closest point between two rows:</li> <li>• Dimension of row: H (min) H (max)</li> </ul>
4.	Any object close to the array that create shadow	Measuring tape/ distance meter/ camera	<ul style="list-style-type: none"> <li>• Type of object:</li> <li>• Location of the object:</li> <li>• Height of the object:</li> <li>• Distance from nearest point on PV array:</li> </ul>

**b. PV Module:**

S. No.	Parameters	Method/ Tools to use	Description of findings
1.	Make & Model No.	Visual Take photo	
2.	Type of cell	Visual Take photo	
3.	Module name plate information	Read and collect information Take photo	<ul style="list-style-type: none"> <li>• <math>P_{max}</math>:</li> <li>• Tolerance:</li> <li>• <math>V_{oc}</math>:</li> <li>• <math>I_{sc}</math>:</li> <li>• <math>V_{mp}</math>:</li> <li>• <math>I_{mp}</math>:</li> </ul>
4.	Temperature coefficients	Use datasheet of PV module	<ul style="list-style-type: none"> <li>• <math>T_c</math> (<math>\square</math>) for <math>I_{sc}</math>:</li> <li>• <math>T_c</math> (<math>\square</math>) for <math>V_{oc}</math>:</li> <li>• <math>T_c</math> (<math>\square</math>) for <math>P_{mp}</math>:</li> </ul>
5.	Total Number of Modules	Count and record	

**c. Inverter:**

S. No.	Parameters	Method/ Tools to use	Findings
1.	Make and Model No.	Read and Record/ photo	Take photo
2.	Type of inverter	Visual	Micro, string, optimizer, semi central

3.	Name plate information	Read nameplate Take photo Use inverter datasheet	<ul style="list-style-type: none"> <li>• Maximum DC capacity:</li> <li>• Maximum DC input voltage:</li> <li>• Nominal AC capacity:</li> <li>• Nominal AC voltage &amp; Phase:</li> <li>• Maximum AC output current:</li> <li>• Number of MPPT:</li> <li>• MPPT voltage range:</li> <li>• Number of inputs per MPPT:</li> <li>• Maximum input DC current:</li> <li>• IP rating: Certification:</li> </ul>
4.	Total number of inverters installed	Count and record	
5.	Number of modules in one string	Count and record	
6.	Total Number of Strings connected to one inverter	Count at DCCB and record	
7.	Number of optimizers connected to one inverter	Count and record	Applicable optimizer-based inverter
8.	Remote monitoring System	Observe and record	<ul style="list-style-type: none"> <li>• Make and model:</li> <li>• Type of communication port?</li> <li>• Medium of communication:</li> </ul>

#### d. DC and AC cable sizing

S. No.	Parameters	Method/ Tools to use	Findings
1.	DC and AC SLD	Collect SLD or draw	Use separate sheet to draw DC and AC SLD
2.	String cable Size	Read and record	
3.	Array Cable Size (DCCB to inverter)	Read and record	
4.	DC cable route length Array to Inverter	Measure	
5.	AC Cable (Inverter size to ACDB)	Read and record	
6.	Placement of strings according to shadow profile and orientation of plan	Observe and record	If the array is affected by shadow, whether strings are arranged to minimise shadow loss?

#### e. System protection for over current and over voltage as per site conditions

S. No.	Parameters	Method/ Tools to use	Findings
1.	Fuse Ratings	Read and record	<ul style="list-style-type: none"> <li>• Type and ratings</li> </ul>
2.	SPD Type	Read and record	<ul style="list-style-type: none"> <li>• Type and ratings</li> </ul>

3.	DC Isolator	Read and record	<ul style="list-style-type: none"> <li>Type and ratings</li> </ul>
4.	Lightning protection system	Observe and record take photo	<ul style="list-style-type: none"> <li>Is there a LPS installed?</li> <li>If yes what type of LPS?</li> </ul>

#### f. Electrical Safety

S. No.	Parameters	Method/ Tools to use	Findings
1.	Earthing continuity for equipotential bonding	Multimeter	<ul style="list-style-type: none"> <li>Check continuity for module to module</li> <li>Check continuity for module to structure</li> <li>Check continuity for structure to earthing strip</li> <li>Check continuity to earthing rod at earth pit</li> </ul>
2.	Type and size of earthing cable/ strip	Observe and record	<ul style="list-style-type: none"> <li></li> </ul>
3.	Condition of earthing conductor	Observe and record	<ul style="list-style-type: none"> <li>Observe if there is rust and poor connection/joints on the earth conductor which can potentially disrupt the continuity</li> </ul>
4.	Is there separate earthing for DC side, AC side and LPS	Observe and record	<ul style="list-style-type: none"> <li></li> </ul>
5.	System Isolation	Observe and record	<ul style="list-style-type: none"> <li>Whether DC isolators used for string cable?</li> <li>Whether DC isolators used for array cable?</li> <li>Isolation between inverter and main panel</li> </ul>
6.	Signage and warnings	Observe and record	Is there warning sign for DC cables, isolators, inverters, and shutdown procedure?
7.	Location of lightning protection system	Observe and record Take photo	

#### g. Fire and Safety Compliances

S. No.	Parameters	Method/ Tools to use	Findings
1.	Access, pathways, and smoke ventilation	Observe and record	Does the system block any fire exit/ fire protection equipment/ pathways or smoke ventilation?
2.	Protection of long DC cables	Observe and record	If DC cables are longer than 50 m, or terminals of the cable are not at the sight, whether disconnectors are installed on both ends?

3.	Protection of DC cable (String and array cable)	Observe and record	<ul style="list-style-type: none"> <li>• Whether strings cables are tied properly?</li> <li>• Is there any string cable hanging?</li> <li>• Whether DC cable from PV array is protected by conduit or cable tray?</li> <li>• If conduit, whether it is UV stabilised?</li> <li>• Whether the cable tray is covered?</li> <li>• Whether cable tray has sharp edges?</li> <li>• Is there any cable lying exposed on the floor?</li> </ul>
4.	Is there any exposed DC conductor	Observe and record Take photo	<ul style="list-style-type: none"> <li>• Look for cable damage and record</li> <li>• Look for cable exposed to sharp metallic objects and record</li> <li>• Look for exposure of cables that may be damaged by rodent / squirrel</li> </ul>
5.	Loose connections in cable joints	IR camera/ IR gun	Check the temperature of the joints and record
6.	Cable glands	Observe and record Take photo	Observe is there is loose or open cable glands
7.	Signage and warnings	Observe and record	Is there warning sign for DC cables, isolators, inverters, and shutdown procedure?
<b>Comments on design and planning:</b>			

#### h. Installation

S. No.	Parameters	Method/ Tools to use	Findings
1.	Distance from PV array to inverter	Measure	
2.	Location of inverter	Check and verify Take photo	<ul style="list-style-type: none"> <li>• Inverter installed in outdoor or indoor.</li> <li>• Is the inverter being accessible?</li> <li>• At what height, the inverter is installed?</li> <li>• Gap between inverter and walls?</li> <li>• Does inverter get enough ventilation?</li> <li>• Does the inverter get direct sunlight?</li> <li>• Whether the inverter is installed in a corner or under staircase? If inverter is protected by a cover or box what kind of cover or box is used?</li> </ul>
3.	Inverter operating temperature	Measure and record	<ul style="list-style-type: none"> <li>• Check operating temperature of the inverter and record. If there is more than one</li> </ul>

			inverter record operating temperature of all inverters
4.	DCCB	Check and verify Take photo	<ul style="list-style-type: none"> <li>Distance from the PV array?</li> <li>Distance from inverter?</li> <li>Outdoor or indoor?</li> <li>Height from the floor/ ground?</li> <li>Is it protected from rain?</li> </ul>
5.	No. of DCCB with system protection	Record	<ul style="list-style-type: none"> <li>Mention No. IN and No. OUT</li> </ul>
6.	No. of DCCB without protection	Record	<ul style="list-style-type: none"> <li>Mention No. IN and No. OUT</li> </ul>
7.	ACCB	Check and verify Take photo	<ul style="list-style-type: none"> <li>Distance from the inverter?</li> <li>Distance from main grid panel?</li> <li>Outdoor or indoor?</li> <li>Height from the floor/ ground?</li> <li>Is it protected from rain?</li> </ul>
8.	Cable routing and conduit	Observe and record	<ul style="list-style-type: none"> <li>Check if conduits / cable tray is intact and UV protected</li> <li>Check if there is any cable not protected by conduit or cable tray</li> </ul>
9.	Grid instability and set points of inverters	Interview the owner use Stopwatch	<ul style="list-style-type: none"> <li>Ask owner if there is unstable (very low and very high) grid voltage</li> <li>Perform anti islanding and functionality test</li> </ul>
10.	Provision and arrangement for system accessibility for maintenance	Observe and record	<ul style="list-style-type: none"> <li>Whether PV modules are accessible for cleaning?</li> <li>Whether water is accessible for cleaning of PV modules?</li> <li>Whether the inverter can be accessed for maintenance?</li> </ul>

#### i. Mounting Structure

S. No.	Parameters	Method/ Tools to use	Findings
1.	Height of building	Estimate	
2.	Type of mounting structure	Observe and record	Ballast type, Racking, flush mount, carport type raised structure etc.
3.	How are modules attached to the mounting structure?	Observe and record	What type of fixing accessories used to fix modules? Clamps/ nut-bolt/ clip
4.	Size of the table	Observe and record	Measure based on number on modules on a table and mention the landscape / portrait



5.	Height of PV array from the base	Measure	Maximum height from the base: Minimum height from the base:
6.	Surrounding terrain of the plant side	Observe	Whether the surrounding area is open or obstructed by other buildings or structure
7.	Effective wind area	Calculate	Exposed area vertical to the wind flow
8.	Material of mounting Structure	Observe and record	MS, Galvanised Iron (GI), Aluminium
9.	Size of concrete block	Measure	
10.	Basic wind speed at the site	IS 875 Pt.3	Refer the basic wind map of India
11.	Thickness of structure	Use vernier calliper	<ul style="list-style-type: none"> <li>Thickness of purlin</li> <li>Thickness of rafter</li> </ul>
12.	Thickness of coating	Ultrasonic thickness gauge	Measure in 3-4 locations of purlin and rafter
13.	Structural integrity	Observe and record Torque wrench	<ul style="list-style-type: none"> <li>Is there any loose or detached part in the structure?</li> <li>Check tightness of the clamp nuts for tightness</li> </ul>
14.	Corrosion	Observe and record	Check if any part of the structure is corroded
<b>Comments on mounting structure:</b>			

## B. System performance

### a. Estimation of Performance Ratio (PR)

S. No.	Parameters	Method/ Tools to use	Findings
1.	Instantaneous performance Ratio(PR) Measurement	Use the method given below	Record calculation as per the formula
2.	Short duration performance ratio(PR) estimation	Use the method given below	Record calculation as per the formula
3.	Long duration Performance ratio(PR) estimation	Use the method given below	Record calculation as per the formula
4.	Loss of performance due to grid outage	As the Owner and estimate	

**Comments on system performance:**

**b. Method for evaluation of Performance Ratio:**

Instantaneous performance Ratio (PR) Measurement	[(Power output from inverter in kW $\div$ DC capacity of plant in kW) $\times$ (1000 Watt/m <sup>2</sup> $\div$ Measured solar irradiance in Watt/m <sup>2</sup> )] Both inverter power and solar irradiance should be measured at the same instance
Short duration performance ratio (PR) estimation	[Energy delivered by the inverter for # number of days $\div$ (# number of days $\times$ average daily PSH for those days $\times$ DC capacity of plant)]
Long duration performance ratio (PR) estimation	[Energy delivered by the inverter for # number of days $\div$ (# number of days $\times$ average daily PSH for those days $\times$ DC capacity of plant)]

**c. String and Module level performance Measurement using multimeter/ clamp meter:**

S. No.	Parameters	Method/ Tools to use	Findings			
1.	String -1	Multimeter/ clamp meter Irradiance meter and IR thermometer	V <sub>mp</sub> :	I <sub>mp</sub> :	Irr:	T:
2.	String -2		V <sub>mp</sub> :	I <sub>mp</sub> :	Irr:	T:
3.	String -3		V <sub>mp</sub> :	I <sub>mp</sub> :	Irr:	T:
4.	String -4		V <sub>mp</sub> :	I <sub>mp</sub> :	Irr:	T:
5.	String- 5		V <sub>mp</sub> :	I <sub>mp</sub> :	Irr:	T:
6.	String -6		V <sub>mp</sub> :	I <sub>mp</sub> :	Irr:	T:
<b>Remarks:</b> (1) Use separate sheet in case of more than 6 strings (2) If unexpected lower voltage is observed in any string, collect module level data as below (3) Record your observation						
Note:						
Module level test for V <sub>oc</sub> and I <sub>sc</sub> to be done if there is major variation of V <sub>mp</sub> and I <sub>mp</sub> at stringlevel						
7.	Module -1	Multimeter/ clamp meter Irradiance meter and IR thermometer	V <sub>oc</sub> :	I <sub>sc</sub> :	Irr:	T:
8.	Module -2		V <sub>oc</sub> :	I <sub>sc</sub> :	Irr:	T:
9.	Module -3		V <sub>oc</sub> :	I <sub>sc</sub> :	Irr:	T:
10.	Module -4		V <sub>oc</sub> :	I <sub>sc</sub> :	Irr:	T:

**Remarks:**

(Write Module ID)

**Measurement using IV tracer**

S. No.	Parameters	Method/ Tools to use	Findings				
1.	String -1	Use IV tracer	V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
2.	String -2		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
3.	String -3		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
4.	String -4		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
5.	String -5		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
6.	String -6		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:

**Remarks:**

- (1) Use separate sheet in case of more than 6 strings
- (2) If unexpected lower voltage is observed in any string, collect module level dataas below
- (3) Record your observation

1.	Module -1	Use IV tracer	V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
2.	Module -2		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
3.	Module -3		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:
4.	Module -4		V <sub>oc</sub> :	I <sub>sc</sub> :	P:	Irr:	T:

**Remarks:**

## **ANNEXURE-B: DATA LOGGING/PLANT MONITORING**

- a) A dedicated data logging system with required software and hardware interface for remote monitoring through internet shall be provided by SPD. The data logging system shall be web based and shall support mobile application (of Indian Origin).
- b) Above system should provide time and date stamped system data logs for analysis, Metering and Instrumentation for display of systems parameters and status indication.
- c) SPD shall aggregate the data with data storage feature from each plant.
- d) Following parameters shall be accessible in real time through Plant Monitoring system:
  - i. AC Voltage.
  - ii. AC Output current.
  - iii. Output Power.
  - iv. Power factor.
  - v. Energy in kWh
  - vi. DC Input Voltage.
  - vii. DC Input Current.
  - viii. Time Active.
  - ix. Time disabled.
  - x. Time Idle.
  - xi. Power produced
  - xii. Temperature (°C)
  - xiii. Inverter status
  - xiv. Irradiance
  - xv. Protective function limits (viz. -AC Over voltage, AC Under voltage, over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage).
- e) String DC Voltage, Current and Power, Inverter AC output voltage and current (All 3 phases and lines), AC power (Active, Reactive and Apparent), Power Factor and AC energy (All 3 phases and cumulative) and frequency shall be monitored.
- f) The data on a specified interval (at least 15 minute) shall be recorded in a common work sheet chronologically date wise. The data file shall be MS Excel compatible. The data shall be represented in both tabular and graphical form.
- g) Provision for Internet monitoring and download of historical data shall be provided.
- h) Sim card shall be arranged by SPD and charges for the same up to complete maintenance period shall be in the scope of SPD.
- i) The contractor shall also provide access of mobile app (Indian origin) without any cost to Buying Entity for monitoring of rooftop solar PV power plant till term of the agreement.

### **ANNEXURE-C: CONSENT FORM**

This deed of indemnity bond executed on this \_\_\_ day of \_\_\_\_\_ 2024 by Shri/Smti. \_\_\_\_\_ S/o or D/o \_\_\_\_\_ residing at premises bearing Door No. \_\_\_\_\_, A&N Islands herein after called the indemnifier and shall include also its successor or legal heir or assigns.

I have approached Electricity Department and provided the details as per the given format during the household survey for demand aggregation of capacity for installation of Rooftop solar power plants in residential buildings under RESCO mode with net metering facility.

In this context, I do hereby submit my consent inter alia on the following conditions-

1. Requisite rooftop area of my house shall be made available on right to use for the installation, operation and maintenance of GCRTS plant by Solar Power Developer. The cost & expenses involved for the purpose shall be solely borne by the SPD throughout the term of the agreement.
2. Easements through the building, including elevators, stairways or any other access points for the purpose of accessing the Rooftop Solar plant and other system component shall be allowed for SPD and Electricity Department.
3. Prior intimation through notice for Roof repair or any other work related to replacement of roof or partial or temporary disassembly shall be given to the SPD and shall execute & complete the work within the time period of 60 days from the date of intimation given by SBD after dismantling/shifting of rooftop plant as per the request.
4. The consent shall remain effective for the term of the agreement between SPD and Electricity Department. Upon termination of this agreement, SPD will at its own cost remove all Solar Equipment and repair any damage to the Building Roof.
5. This consent is limited to allowing SPD only to install, maintain and operate the Solar Equipment on the Rooftop of the house building.
6. This consent shall not be applicable for any purpose which is illegal, creates nuisance dangerous to life, hazardous to environment caused by the system or its allied component is not allowed.
7. This consent will allow only authorized person or persons of SPD or Electricity Department to access the Equipment Space or maintain or operate the Solar Equipment.
8. This consent is provided on the condition that SPD agrees not to commit any waste or allow any waste to be committed within or on any portion of the Rooftop and will not injure the Rooftop or Building but will maintain the Rooftop in a clean condition except the damage caused to the roof by natural or other reasons. SPD will remove all excess cable, tools and equipment and will keep all areas neat and clean at all times.

9. This consent shall not make the roof owner liable for any loss or damage attributable in whole or in part to SPD and Electricity Department or its employees, servants, agents or contractors, because of damage to, loss or destruction of property, including loss of use thereof, and/or because of bodily injury, sickness or disease, or death sustained by any person, including workmen's occupational disease arising directly or indirectly from the activities performed on the rooftop solar system, arising directly or indirectly from the solar equipment, or the use and occupancy by SPD of the Rooftop.
10. This consent does not make roof owner liable for any loss or damage to any property or person, occasioned by theft, fire, act of God, court order, acquisition, or order of governmental body or authority.
11. The consent shall be stand withdrawn if the SPD fails to comply with its obligations for installation, commissioning, Operation and maintenance of the solar plant as agreed upon with the Electricity Department prior & post installation till the term of the agreement and also during the conditions consequent to force majeure event.
12. The roof owner will have the right to transfer and assign, in whole or in part, all its rights and obligations hereunder and in the Building, and in such event and upon such transfer, ex- house owner will be released from any further obligations hereunder, and will be carry forward to the successor for the performance of such obligations made in this consent.

Notwithstanding any of the above written points, such that I \_\_\_\_\_ shall duly and faithfully observe and perform the above said conditions, throughout the term of the agreement.

In witness whereof, I \_\_\_\_\_ has signed this deed, on the \_\_\_\_ day, month and year herein before first mentioned.

In the presence of

Witness (Name & Address)

**Signed by Roof Owner**

### **ANNEXURE-D: BANK DETAILS**

Name of The Beneficiary:

Principal Place of Business &Address:Name of The Bank:

Bank Address:

Bank Account No:

Type of Bank Account - SB/CA/CC:IFSC/NEFT/RTGS Code:

MICR Code:

PAN Card No:

Phone No./ Fax No. with Std Code:

Email id of Contact Person: