The Superintending Engineer, Electricity OP Circle, UT Chandigarh.

Τo

The Secretary,
JERC for Goa and UTs,
2<sup>nd</sup> Floor, HSIIDC Office Complex,
Vanijya Nikunj Complex,
Udyog Vihar, Phase-V,
Gurgaon- 122016.
Telefax No(s): 0124-2342853

Memo No.SEE/OP/C2-2016/90/ 666 Dated 15 3 16

Subject:-

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

In this regard, enclosed please find herewith subject cited petition alongwith Demand Draft No. 661513 Dated 04.03.2016 amounting to Rs. 20,000/- for consideration and approval please.

**DA/As Above** 

Superintending Engineer, Electy. 'OP' Circle UT., Chandigarh



चंडीगढ़ (संघ राज्यक्षेत्र) CHANDIGARH (U.T.)

01AA 615252

#### **AFFIDAVIT**

BEFORE THE JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA, & UNION TERRITORIES, GURGAON

Filing No.....

Case No.....

IN THE MATTER OF:

Approval of Draft Solar Net/Gross metering Powe

Purchase Agreement (PPA) .

**AND** 

IN THE MATTER OF:

Chandigarh Electricity Department (hereinafter referred to as "CED" which shall mean for the purpose of this petition the Licensee), having its office at Chandigarh - Petitioner

#### AFFIDAVIT VERIFYING THE PETITION

I M.P.Singh, son of Late Sh Kuldeep Singh, aged 55 years do hereby solemnly affirm and state as follows:

the

- 1. That the deponent is the Superintending Engineer of Chandigarh Electricity Department and is authorised to sign and submit the said petition, and is acquainted with the facts deposed to below.
- 2. I, on behalf of CED, hereby verify that the contents of the accompanying review petition are based on the records of the Electricity Department, Chandigarh maintained in the ordinary course of business and believed by them to be true and I believe that no part of it is false and no material has been concealed there from.

Details of enclosures :-

- (i) PPA Annexure-A and B
- (ii) Various Clauses Annexure C
- (iii) Demand Dradt 661513 Dt-04/3/16 And - 20,000/-

DEPONENT

Place: Chandigarh Dated: 15.03.2016

#### **VERIFICATION**

I, the above named deponent, do hereby verify on this day the 29th day of February, 2016 at Chandigarh and state that the contents of the foregoing additional submission are true and correct. Nothing stated therein is false and nothing material has been concealed.

DEPONENT

Place: Chandigarh Dated: 15 .03.2016





ATTESTED

Special Executive Magistrate
U.T., Chandigark

# BEFORE THE JOINT ELECTRICITY REGULATORY COMMISSION FOR THE STATE OF GOA, & UNION TERRITORIES, GURGAON

Filing	No.	٠.	μ	 4	*	٠	4	
Case	No				•			

IN THE MATTER OF:

Approval of Draft Solar net/Gross metering Power

Purchase Agreement (PPA).

**AND** 

IN THE MATTER OF:

Chandigarh Electricity Department (hereinafter referred to as "CED" which shall mean for the purpose of this petition the Licensee), having its

office at Chandigarh - Petitioner

The Petitioner respectfully submits as under: -

- 1. That the Petitioner, the Chandigarh Electricity Department (CED) has been allowed to function as an integrated Distribution licensee for the license area of Chandigarh UT.
- 2. That the Solar Power- Grid connected ground mounted and solar roof top and metering regulations -2015, has been notified by the Hon'ble commission and the commission has also suggested vide regulation – 2014 – July 2014 for the indicative PPA between the Solar Power Developer and the Distribution Licensee. However the PPA seems to be for plant specific. for which the tariff is determined by the Hon'ble commission.
- 3. That the 136 Nos ( Net Metering 119 Nos and 17 Nos Gross Metering ) of intended consumers have already applied for solar power project. Out of which 35 connections (29 net Metering and 6- Gross Metering) have already been released by the CED but the PPA is still pending due to non finalisation of the PPAs.
- 4. That as the draft PPA is already been forwarded to the Hon'ble commission vide this office memo No-3184 Dt-09/10/15. However it has been advised by Hon'ble JERC to file petition in this regard.
- 5. That the draft power Purchase Agreement for Gross and Net metering Solar Power Connections have been prepared and annexed as Annexure-A & B for kind consideration.
- 6. Further the CED UT has been facing the problems with regard to the billing of Solar Net Metering as the clauses under the regulation seems contradictory. The details are annexed as **Annexure-C**.

K

#### Prayer to the Commission:-

Considering the above, the petitioner respectfully prays that the Hon'ble Commission may kindly approve the Purchase Agreement for Gross and Net metering Solar Power connections

and

Whether the net surplus generation shall be set off to zero or the payment to the Consumer is to be made for the surplus units at the solar tariff or any other rate. (After the end of the settlement period).

Er.M.P.Singh,

Petitioner

SE(Electy) OP Circle. UT

Place: Chandigarh Dated: 15.03.16

		-
भारतीय स्टेट वैंक State Bank of India		
ारी करने वाली शाखा ssui;g Branch:TREAS, BR, SECT-17, CHANDIGARH शेंड के /CODE No: 08719 el No. 0172-4567932	Sr. No: 743938 D D M M Y Y Y	6 g Y 8
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# GROSS METERING INTER CONNECTION AGREEMENT

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(month)	year	betwe	en the Elec	tricity Win	ig of the
Engineering dep	partment, C	handigarh A	dministration	UT Chanc	digarh for
and on behalf	of President	of India (he	erein after ca	alled as CE	D) which
expressions sh	all unless	repugnant	to context	shall inclu	ude their
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represented by			(design	nation of o	ffice) and
having	its	office	at		(address)
AND					
the Solar Powe	r Develope	r , by the i	name of		- Company or -
having p	remises	at	(address)		
			_ (herein af	ter called	as SPD)
which expression	ns shall un	less repugna	int to contex	t shall inc	lude their
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(Each of the p	parties of the	ne <mark>First an</mark> c	d second p	art above	are also
individually refe	rred to as a	"Party" and	collectively a	s the "Part	ties")
,					
whereas, the C	CED agrees	to provide	grid connecti	vity to the	SPD for
injection of the	electricity	generated fr	om SPD's so	lar plant c	f capacity
kWp ir	to the pow	er system o	f CED as p	er conditio	ns of this
agreement and	"Solar Powe	er - Grid con	nected groun	d mounted	and solar
roof top and m	neterina Rec	ulations-201	5" issued by	the Joint	Electricity
Regulatory Com					
		* /			
	-	_			

#### **DEFINITIONS AND INTERPRETATIONS:**

In this agreement, all the definitions, abbreviations and interpretations are as per "Solar Power – Grid connected ground mounted and solar roof top and metering Regulations-2015" issued by the Joint Electricity Regulatory Commission for U.T(s) and State of Goa.

All other words and expressions used in these Regulations although not specifically defined herein above, but defined in the Act, shall have the meaning assigned to them in the Act. The other words and expressions used herein but not specifically defined in these Regulations or in the Act



but defined under any law passed by the Parliament / State Legislation / UT Administration applicable to the electricity industry in the UT Chandigarh shall have the meaning assigned to them in such law

Both the parties hereby agree to as follows:-

1. Eligibility:

Eligibility for gross-metering has been specified in the relevant order of the Joint Electricity Regulatory Commission for U.T(s) and State of Goa. Second Party has to meet the standards and conditions for being integrated into grid / distribution system.

2. Technical and Interconnection Requirements:

- 2.1 The Second Party agrees that its Solar Generation plant and gross metering system will conform to the standards and requirements specified in "Solar Power Grid connected ground mounted and solar roof top and metering Regulations-2015" issued by the Joint Electricity Regulatory Commission for U.T(s) and State of Goa and in the following Regulations and codes as amended from time to time.
  - (i) CEA's (Technical Standards for connectivity of the Distributed Generating Resources) Regulation-2013 and subsequent amendments thereof.
  - (ii) Central Electricity Authority (Installation and Operation of Meters) Regulation 2006 and subsequent amendments thereof.
  - (iii) Central Electricity Authority (Measures relating to safety and electric supply) Regulation 2010 and subsequent amendments thereof.
  - (iv) JERC State Grid Code Regulation 2010 and subsequent amendments thereof.
  - (v) Any other provision applicable to the Gross Metering Solar power producer as per regulation of competent authority from time to time.
- 2.2 In consideration of the premises and mutual covenants and conditions set forth herein, it is hereby agreed by and between the parties hereto as follows:
- 2.2.1 SPD to Design, construct, erect, commission, completing and test the Solar Power Project in accordance with the Prudent

(53)

- Utility Practices and the applicable Law, including the Grid Code, the terms and conditions of this Agreement.
- 2.2.2 SPD to obtain all information with regard to the Interconnection Facilities as reasonably necessary to enable it to design, install and operate all interconnection plant and apparatus on the SPD's side to enable delivery of electricity at the Delivery Point.
- 2.2.3 That SPD has installed or will install, prior to connection of photovoltaic system to CED Distribution System, an isolation device (both automatic and inbuilt within inverter and external manual relays) and agrees for the CED to have access to an operation of this, if required and for repair and maintenance of the distribution system.
- 2.2.4 That in case of power outage on CED system, SPD's photovoltaic system will disconnect / isolate automatically and its plant will not inject power into CED's distribution system.
- 2.2.5 That all the equipments of SPD connected to distribution system of CED shall be compliant with relevant International (IEEE / IEC) or Indian Standards (BIS) and Installations of Electrical equipment must comply with Measures relating to safety and Electric Supply Regulation, 2010 notified by Central Electricity Authority.
- 2.2.6 That CED will specify the interface / interconnection point and metering point to SPD.
- 2.2.7 Parties agree to comply with the relevant CEA Regulations and Joint Electricity Regulatory Commission, Electricity Supply Code Regulations-2010, in respect of operation and maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage, frequency, flicker etc.
- 2.2.8 Due to CED obligation to maintain a safe and reliable distribution system, SPD agrees that if it is determined by the CED that SPD photovoltaic system either causes damage to and / or produces adverse effects affecting other consumers



or CED assets, SPD will have to disconnect photovoltaic system immediately from the distribution system upon direction from the CED and correct the problem at its own expenses prior to a reconnection.

2.2.9 The SPD shall be solely responsible for any accident to human being / animals whatsoever (fatal / non-fatal / departmental / non-departmental) that may occur due to back feeding from the SPD plant when the grid supply is off. The CED reserves the right to disconnect the SPD's installation at any time in the event of such exigencies to prevent accident or damage to man and material without any notice.

Clearance and Approvals:

The Solar power developer shall obtain all the necessary consents, approvals and clearances (environmental and grid connection related) before connecting the photovoltaic system to the distribution system.

# 4. Access and Disconnection:

- 4.1 CED shall have to access to metering equipment and disconnecting means of the solar photovoltaic system, both automatic and manual, at all times.
- 4.2 In emergency or outage situation, where there is no access to the disconnecting means, both automatic and manual, such as a switch or breaker, CED may disconnect service to the premises of SPD.

#### 5. Liabilities:

- 5.1 SPD shall indemnify CED for damages or adverse effects from its negligence or intentional misconduct in the connection and operation of photovoltaic system resulting into damage to CED's distribution system.
- 5.2 Parties shall not be liable to each other for any loss of profits or revenues.
- 5.3 CED shall not be liable for deliver or realization by SPD for any fiscal or other incentive provided by the Central / State



Government beyond the scope specified by the commission in its relevant order.

- 5.4 CED shall consider the quantum of electricity generation from the Solar PV system of SPD.
- 5.5 The proceeds from carbon credits shall be as per the Solar Power Grid connected ground mounted and solar roof top and metering Regulations-2015 and subsequent amendments thereof.

# 6. Commercial Settlement:

All the commercial settlement under this agreement shall follow the "Solar Power – Grid connected ground mounted and solar roof top and metering Regulations-2015" and subsequent amendments thereof Issued by JERC. Rebate for early release of payment shall be as per JERC Regulation.

# 7. Investment in the Grid Augmentations:

The cost of any augmentation required after the interconnection point in the system of the Distribution Licensee shall be borne by the CED.

The Distribution Licensee shall not be liable to pay any compensation to the SPD for deemed generation benefits in case the CED is unable to absorb the power due to the reasons which are beyond control of the CED.

# 8. Communication facilities:

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

# 9. Interconnection with the Grid:

The Solar Power Developer shall make adequate arrangements to connect the Solar Power Project switchyard with the Interconnection Facilities at the Delivery Point;



10. Transmission Agreement for Solar Plants of capacity 1MW & above:

The SPD shall sign a Transmission Agreement with State Transmission Utility (STU) (if required) for Solar Projects of 1 (One) MWp and above confirming the evacuation and connectivity of the STU system up to the delivery point of SPD by the Scheduled Commissioning date;

11. Quantum of Solar Power to be bought:

- The CED at any time during a Contract Year, shall not be obliged to purchase any additional energy from the SPD beyond ..... kWh.
- For any Contract Year, for Solar projects of ...... kWp b) and above, if it is found that the SPD has not been able to generate minimum energy of ...... kWh, the noncompliance by SPD shall make it liable to pay the compensation to the CED to enable the CED to Comply with Renewable Power Obligation (RPO) notified by Regulatory This compensation shall be applied to the commission. quantum of shortfall in solar power generation during the every financial year under Contract Agreement. The rate per unit of compensation shall be computed at the forbearance price determined by competent authority from time to time.

12. Metering of Plant:

The SPD shall bear all costs pertaining to installation, testing, calibration, maintenance, renewal and repair of meters at SPD's side of Delivery Point. For grid connected solar plants, SPD will install necessary equipment for regular monitoring of solar irradiance (including DNI), ambient air temperature, wind speed and other weather parameters and simultaneously for monitoring of the electric power generated from the plant.

13. Online arrangements:

On line arrangements would have to be made by the solar power developer for projects 1 (One) MWp and above for submission of above data regularly for the entire period of this Power Purchase Agreement to the MNRE/ IREDA for up-dating of its records.

#### 14. Tariff Period:

Tariff period under this agreement shall be Twenty Five (25) Years and shall be reckoned from the date of commercial operation of the plant.

15. Tariff Application:

The Tariff Application under this agreement is single part tariff and is fixed for Rs.\_\_\_\_\_/- Unit as per Tariff approved by JERC for a specific year).

16. Solar Power Despatch:

The plant being a grid connected and shall be treated as 'MUST RUN' power plant and shall not be subjected to merit order dispatch basis by the license.

17. Quantum of Purchase of Electricity from Solar Power Plant: The quantum of purchase of power from Solar Power Project under this agreement will be \_\_\_\_\_ units / annum.

18. Impact of change in law:

In case of any change in Law during the tenure of the PPA, the aggrieved Party shall be required to approach the Hon'ble JERC for seeking approval of impact due to Change in Law.

The decision of the Hon'ble J E R C to acknowledge Change in Law and the date from which it will become effective, provide relief for the same, shall be final and governing on both the Parties.

19. Any other terms and conditions in addition to above shall be made applicable to parties as per JERC (Solar power- grid connected ground mounted and solar roof top and metering) regulation 2015 as amended from time to time.

#### 20. Event of defaults:

The occurrence and continuation of any of the following events, unless any such event occurs as a result of a Force Majeure Event or a breach by Distribution Licensee of its obligations under this Agreement, shall constitute a SPD Event of Default:

(i) The failure to commence supply of power to Distribution Licensee up to the Contracted Capacity, by the end of the period specified in Article ...., or if:



- a) The SPD assigns, mortgages or charges or purports to assign, any of its assets or rights related to the Power Project in contravention of the provisions of this Agreement; or
- b) The SPD transfers or novates any of its rights and/ or obligations under this agreement, in a manner contrary to the provisions of this Agreement; except where such transfer is in pursuance of a Law; and does not affect the ability of the transferee to perform, and such transferee has the financial capability to perform, its obligations under this Agreement or is to a transferee who assume s such obligations under this Agreement and the Agreement remains effective with respect to the transferee;
- (ii) if(a) the SPD becomes voluntarily or involuntarily the subject of any bankruptcy or insolvency or winding up proceedings and such proceedings remain uncontested for a period of 30 (Thirty) days, or (b) any winding up or bankruptcy or insolvency order is passed against the SPD, or (c) the SPD goes into liquidation or dissolution or has a receiver or any similar officer appointed over all or substantially all of its assets or official liquidator is appointed to manage its affairs, pursuant to Law,

Provided that a dissolution or liquidation of the SPD will not be a SPD Event of Default if such dissolution or liquidation is for the purpose of a merger, consolidation or reorganization and where the resulting company retains creditworthiness similar to the SPG and expressly assumes all obligations of the SPD under this Agreement and is in a position to perform them;

(iii) The SPD repudiates this Agreement and does not rectify such breach within a period of 30 (Thirty) days from a notice from the CED in this regard; or except where due to any the CED's failure to comply with its material obligations, the SPD is in breach of any of its material obligations pursuant to this Agreement, and such material breach is not rectified by the SPD within 30 (Thirty) days of receipt of first notice in this regard given by the CED.



- 21. Occurrence of any other event which is specified in this Agreement to be a material breach/ default of the SPD.
- 22. Where any Dispute (a) arises from a claim made by any Party for any change in or determination of the Tariff or any matter related to Tariff or claims made by any Party which partly or wholly relate to any change in the Tariff or determination of any of such claims could result in change in the Tariff, or (b) relates to any matter agreed to be referred to the Hon'ble JERC.

#### 23. Termination:

- 23.1 The SPD can terminate agreement at any time by providing CED with 90 days prior notice, if CED breaches any of the terms of this agreement only.
- 23.2 The CED has the right to terminate agreement on 30 days prior written notice, if SPD commits breach of any of the terms of this agreement and does not remedy breach within 30 days of receiving written notice from CED of the breach.
- 23.3 SPD shall upon terminate of this agreement, disconnect the photovoltaic system from CED's distribution system in a timely manner and to CED's satisfaction.

#### 24. ARBITRATION:

All questions, differences or disputes between the parties arising out of or in connection with this Agreement save and except as provided under this Agreement shall be mutually discussed between the Parties and resolved within 90 days.

In the event parties are unable to mutually resolve the dispute, the same shall be settled through arbitration by a written notice to the other party or parties requesting for appointment of sole Arbitrator to be mutually decided by the parties within 30 days of receipt of such notice. The arbitration shall be concluded in accordance with the provisions of Arbitration and Conciliation Act, 1996 and any statutory modifications thereto.

The decision of the Arbitrator shall be final and binding on the parties. The venue of the arbitration proceedings shall be decided by the Arbitrator with the consent of parties.



#### 25. FORCE MAJEURE:

Both the parties shall ensure compliance of the terms of this Agreement. However, no party shall be liable for any claim for any loss or damage whatsoever arising out of failure to carry out the terms of this Agreement to the extent that such a failure is due to force majeure events such as rebellion, mutiny, civil commotion, riot, strike, lock out, epidemic, plague, fire, explosion, flood, drought, cyclone, lightning, earthquake, war or other forces, accident or act of God, terrorism, malicious act, landslide, sabotage, communal violence, kidnapping etc. But any party claiming the benefit of this clause shall satisfy the other party of the existence of such an event(s). The intimation of such force majeure must be intimated within 15 days of its occurrence to the other party.

#### 27 NOTICES

All notices required or referred to under this Agreement shall be in writing and signed by the authorities mentioned herein below unless otherwise notified. Each such notice shall be deemed to have been duly served if delivered, or sent by registered mail /speed post/courier with an acknowledgement due to the other party.

In witness thereof the parties hereto have caused this Agreement to be executed hereunder by their duly authorized representative(s) on the day, month and year first above written.

For & on behalf of CED

For and on behalf of SPD.

WITNESS

WITNESS

# NET METERING INTER CONNECTION AGREEMENT

(	on this (date) day of between the Electricity Wing of the Engineering department, Chandigarh Administration UT Chandigarh for and on behalf of President of India (herein after called as CED) which expressions shall unless repugnant to context shall include their respective successors and assigns as party of the first part and represented by (designation of office) and having its office at (address)
,	AND the Eligible consumer, by the name ofhaving premises at (address)(herein after called as ELIGIBLE
	CONSUMER) which expressions shall unless repugnant to context shall include their respective successors and assigns as party of the second part
	(Each of the parties of the First and second part above are also individually referred to as a "Party" and collectively as the "Parties")
	whereas, the CED agrees to provide grid connectivity to the ELIGIBLE CONSUMER for injection of the electricity generated from ELIGIBLE CONSUMER's solar plant of capacity kWp into the power system of CED as per conditions of this agreement and "Solar Power – Grid connected ground mounted and solar roof top and metering Regulations-2015" issued by the Joint Electricity Regulatory Commission for UTs and State of Goa.
	DEFINITIONS AND INTERPRETATIONS:

In this agreement, all the definitions, abbreviations and interpretations are as per "Solar Power – Grid connected ground mounted and solar roof top and metering Regulations-2015" issued by the Joint Electricity Regulatory Commission for U.T(s) and State of Goa.

All other words and expressions used in these Regulations although not

specifically defined herein above, but defined in the Act, shall have the meaning assigned to them in the Act. The other words and expressions used herein but not specifically defined in these Regulations or in the Act but defined under any law passed by the Parliament / State Legislation / UT Administration applicable to the electricity industry in the UT Chandigarh shall have the meaning assigned to them in such law.

Both the parties hereby agree to as follows:-

#### 1. Eligibility:

Eligibility for gross-metering has been specified in the relevant order of the Joint Electricity Regulatory Commission for U.T(s) and State of Goa. Second Party has to meet the standards and conditions for being integrated into grid / distribution system.

### 2. Technical and Interconnection Requirements:

- 2.1 The Second Party agrees that its Solar Generation plant and Net metering system will conform to the standards and requirements specified in "Solar Power – Grid connected ground mounted and solar roof top and metering Regulations-2015" issued by the Joint Electricity Regulatory Commission for U.T(s) and State of Goa and in the following Regulations and codes as amended from time to time.
  - (i) CEA's (Technical Standards for connectivity of the Distributed Generating Resources) Regulation-2013 and subsequent amendments thereof.
  - (ii) Central Electricity Authority (Installation and Operation of Meters) Regulation 2006 and subsequent amendments thereof.
  - (ili) Central Electricity Authority (Measures relating to safety and electric supply) Regulation 2010 and subsequent amendments thereof.
  - (iv) JERC State Grid Code Regulation 2010 and subsequent amendments thereof.
  - Joint Electricity Regulatory Commission, Electricity Supply Code Regulations-2010 and subsequent amendments thereof,
  - (vi) JERC Standard of Performance Regulation 2009 and subsequent amendments thereof

- (vii) Any other provision applicable to the Gross Metering Solar power producer as per regulation of competent authority from time to time.
- 2.2 In consideration of the premises and mutual covenants and conditions set forth herein, it is hereby agreed by and between the parties hereto as follows:
- 2.2.1 ELIGIBLE CONSUMER to Design, construct, erect, commission, completing and test the Solar Power Project in accordance with the Prudent Utility Practices and the applicable Law, including the Grid Code, the terms and conditions of this Agreement.
- 2.2.2 ELIGIBLE CONSUMER to obtain all information with regard to the Interconnection Facilities as reasonably necessary to enable it to design, Install and operate all interconnection plant and apparatus on the ELIGIBLE CONSUMER's side to enable delivery of electricity at the Delivery Point.
- 2.2.3 That ELIGIBLE CONSUMER has installed or will install, prior to connection of photovoltaic system to CED Distribution System, an isolation device (both automatic and inbuilt within inverter and external manual relays) and agrees for the CED to have access to an operation of this, if required and for repair and maintenance of the distribution system.
- 2.2.4 That in case of power outage on CED system, ELIGIBLE CONSUMER's photovoltaic system will disconnect / isolate automatically and its plant will not inject power into CED's distribution system.
- 2.2.5 That all the equipments of ELIGIBLE CONSUMER connected to distribution system of CED shall be compliant with relevant International (IEEE / IEC) or Indian Standards (BIS) and Installations of Electrical equipment must comply with Measures relating to safety and Electric Supply Regulation, 2010 notified by Central Electricity Authority.
- 2.2.6 That CED will specify the interface / interconnection point and metering point to ELIGIBLE CONSUMER.

- 2.2.7 Parties agree to comply with the relevant CEA Regulations and Joint Electricity Regulatory Commission, Electricity Supply Regulations-2010, in respect of operation maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage, frequency, flicker etc.
- 2.2.8 Due to CED obligation to maintain a safe and reliable distribution system, ELIGIBLE CONSUMER agrees that if it is ELIGIBLE CONSUMER determined by the CED that photovoltaic system either causes damage to and / or produces adverse effects affecting other consumers or CED have to disconnect assets, ELIGIBLE CONSUMER will photovoltaic system immediately from the distribution system upon direction from the CED and correct the problem at its own expenses prior to a reconnection.
  - 2.2.9 The ELIGIBLE CONSUMER shall be solely responsible for any accident to human being / animals whatsoever (fatal / nonfatal / departmental / non-departmental) that may occur due to back feeding from the ELIGIBLE CONSUMER plant when the grid supply is off. The CED reserves the right to disconnect the ELIGIBLE CONSUMER's installation at any time in the event of such exigencies to prevent accident or damage to man and material without any notice.

Clearance and Approvals: 3.

The Eligible consumer shall obtain all the necessary consents, approvals and clearances (environmental and grid connection related) before connecting the photovoltalc system to the distribution system.

Access and Disconnection:

- CED shall have to access to metering equipment and disconnecting means of the solar photovoltaic system, both automatic and manual, at all times.
- In emergency or outage situation, where there is no access to the disconnecting means, both automatic and manual, such as 4.2

a switch or breaker, CED may disconnect service to the premises of ELIGIBLE CONSUMER.

#### Liabilities: 5.

- ELIGIBLE CONSUMER shall indemnify CED for damages or adverse effects from its negligence or intentional misconduct 5.1 in the connection and operation of photovoltaic system resulting into damage to CED's distribution system.
- Parties shall not be liable to each other for any loss of profits 5.2 or revenues.
- CED shall not be liable for deliver or realization by ELIGIBLE CONSUMER for any fiscal or other incentive provided by the 5.3 Central / State Government beyond the scope specified by the commission in its relevant order.
- CED shall consider the quantum of electricity generation from the Solar PV system of ELIGIBLE CONSUMER.
- The proceeds from carbon credits shall be as per the Solar Power - Grid connected ground mounted and solar roof top and metering Regulations-2015 and subsequent amendments thereof.

# Commercial Settlement:

All the commercial settlement under this agreement shall follow the "Solar Power - Grid connected ground mounted and solar roof top and metering Regulations-2015" and subsequent amendments thereof issued by JERC. Rebate for early release of payment shall be as per JERC Regulation.

# 7. Connection Costs:

The Eligible consumer shall bear all costs related to setting up of photovoltaic system including metering and interconnection costs. The eligible consumer agrees to pay the actual costs of modifications and upgrades to the service line required to connect photovoltaic system to the grid in case, it is required.

#### Tariff Period: 8.

Tariff period under this agreement shall be Twenty Five (25) Years and shall be reckoned from the date of commercial operation of the plant.

**Tariff Application:** 9.

The Tariff Application under this agreement is single part tariff and is fixed for Rs.\_\_ for a specific year).

10. Impact of change in law:

In case of any change in Law during the tenure of the PPA, the aggrieved Party shall be required to approach the Hon'ble JERC for seeking approval of impact due to Change in Law.

The decision of the Hon'ble JERC to acknowledge Change in Law and the date from which it will become effective, provide relief for the same, shall be final and governing on both the Parties.

- 11. Any other terms and conditions in addition to above shall be made applicable to parties as per JERC (Solar power- grid connected ground mounted and solar roof top and metering) regulation 2015 as amended from time to time.
- 12. Where any Dispute (a) arises from a claim made by any Party for any change in or determination of the Tariff or any matter related to Tariff or claims made by any Party which partly or wholly relate to any change in the Tariff or determination of any of such claims could result in change in the Tariff, or (b) relates to any matter agreed to be referred to the Hon'ble JERC.
  - 13. The terms and conditions related to metering, billing and payment & Adjustment shall be as per JERC (Solar power- grid connected ground mounted and solar roof top and metering) regulation 2015 as amended from time to time.

14. Termination:

14.1 The ELIGIBLE CONSUMER can terminate agreement at any time by providing CED with 90 days prior notice, if CED breaches any of the terms of this agreement only.

- 14.2 The CED has the right to terminate agreement on 30 days prior written notice, if ELIGIBLE CONSUMER commits breach of any of the terms of this agreement and does not remedy breach within 30 days of receiving written notice from CED of the breach.
  - 14.3 ELIGIBLE CONSUMER shall upon terminate of this agreement, disconnect the photovoltaic system from CED's distribution system in a timely manner and to CED's satisfaction.

# 24. ARBITRATION:

All questions, differences or disputes between the parties arising out of or in connection with this Agreement save and except as provided under this Agreement shall be mutually discussed between the Parties and resolved within 90 days.

In the event parties are unable to mutually resolve the dispute, the same shall be settled through arbitration by a written notice to the other party or parties requesting for appointment of sole Arbitrator to be mutually decided by the parties within 30 days of receipt of such notice. The arbitration shall be concluded in accordance with the provisions of Arbitration and Conciliation Act, 1996 and any statutory modifications thereto.

The decision of the Arbitrator shall be final and binding on the parties. The venue of the arbitration proceedings shall be decided by the Arbitrator with the consent of parties.

For & on behalf of CED ELIGIBLE CONSUMER. For and on behalf of

WITNESS

WITNESS

As per the the Solar Power- Grid connected ground mounted and solar roof top and metering regulations -2015, the various clauses relating to billing of solar Net metering, seems to be contrary of each other :-

- (i) Clause 11 © At the end of each billing cycle, the distribution licensee will take readings of imported and exported energy as shown by the bi directional service connection meter. The prosumer will be presented the bill of difference between imported and exported energy (the net imported energy). If during a billing cycle exported energy exceeds imported energy, the export surplus will be carried over to the next billing cycle.
- (ii) Clause 11 (d)- Settlement period shall be 1<sup>st</sup> April to 30<sup>th</sup> September and 1<sup>st</sup> Oct. to 31<sup>st</sup> March, a final settlement energy bill shall be prepared by the distribution licensee at the end of the settlement period. A final settlement at the end of the settlement period, a maximum of 100% (one hundred percent ) of the imported solar energy will be credited against exported energy for the purpose of net metering.
- (iii) Clause11(f) Excess energy exported to the grid (measured in Kwh) can only be utilized to offset the electricity consumption (measured in Kwh) and not for adjustment of any other fees and charges levied by the distribution licensee.
- (iv) Clause 12 (d) (lv)- Purchase of Solar energy: If at the end of a settlement period, the solar power into the grid exceeds the energy that has been imported, the excess generated energy shall be paid at the applicable solar tariff as per the raised by the SPG as per the billing cycle or at the end of the settlement period whichever is opted by the SPG.
- (v) Clause 30.(a)- On commissioning of the Solar plant and at the end of each of the billing cycle, the distribution licensee will take energy meter reading for import/drawl and export/injection of power and work out the net energy flow quantum from the consumer to be treated as energy banked by the consumer with the distribution licensee in

the current billing cycle. In such scenario, the consumer will be issued Energy account Statement along with the bill for charges like meter rentals, service charges etc. and banked energy will be carried forward for accounting in the next billing cycle or till the time consumer intends it to be banked subject to the time limits specified in these regulation.

- (vi) Clause 30 (b) The energy Bill for the Import will be prepared as peer the retail supply tariff as approved by the Commission for the category to which it belongs. The energy banked with the distribution licensee from the solar plant shall be set off against the energy imported from the distribution licensee's grid at the JERC's approved retail supply tariff applicable to the particular consumer category.
- (vii) Clause 30 © At the end of the next and subsequent billing cycles and at the end on settlement period, the distribution licensee will take energy meter reading and work out the net flow taking into consideration the energy solar far banked and not yet settled , if any . The procedure will be repeated at the end of every billing cycle. The settlement of the net energy including and banked energy shall be done at the end of each settlement period based on consumption as per these regulations.
- (viii) Clause 53. The net metered prosumer bill in solar project will get adjusted as per the tariff of solar power tariff decided by the commission. If a prosumer is net exporter solar power, the consumer will get payment as per the settlement period.

From all the above clauses, it cannot be gathered / concluded as to whether the surplus power at the end of the settlement period is to be fully set off or the prosumer has to be paid at the solar tariff or set off to maximum of 100% of the imported energy.

In this regard the proposal with example which require clarification is enclosed please:-

Illustration of Net Metering Billing

Billing Period	Brought Forward unit's Kwh	Injection (A)	Drawi (B)	Net (C)	Carried forward unit(C) if B <a or<br="">billed unit if B&gt;A</a>		
April to May							
(2months)	0	300	200	100	100 *		
June to							
July (2months)	100	500	650	-150	-150 **		
August to							
September	0	300	100	200	200 *		
(2months)							

<sup>\*</sup>means the unit shall be carried forward in the next billing cycle (within settlement period)

\*\*means the licensee shall bill for 150 units for that period