Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and subsequent amendments thereof and UPERC (Promotion of Green Energy through Renewable Purchase Obligation) Regulations,2010.

13.2 The eligibility for Renewable Energy Certificate and issuance of such renewable energy certificate shall be as per the eligibility criteria specified under Central Electricity Regulatory Commission (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulations, 2010 and subsequent amendments thereof.

14 Penalty or Compensation

In case of failure of gross metering or net metering system as the case may be, the provisions of penalty or compensation shall be as per the provisions of the provided in the UPERC (Electricity Supply Code) Regulations, 2005 and subsequent amendments thereof or as determined by the Commission from time to time.

15 Power to give directions

The Commission may from time to time issue such directions and orders as considered appropriate for the implementation of these Regulations.

16 Power to relax

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

17 Power to amend

The Commission may from time to time add, vary, alter, suspend, modify, amend or repeal any provisions of these Regulations.

By the order of the Commission

Secretary

Annexure-I

Application Form Number ……

APPLICATION FOR INTENT TO SEEK CONNECTIVITY OF ROOFTOP SOLAR PV SYSTEM

1.	Name				
	Full Address of Consumer /				
	Applicant				
2.	Consumer No. (CA. No.)				
	(Owner of the premises)				
3.	Category (Domestic / Non Domestic/Commercial etc. specify)				
	(Owner of the premises)				
4.	Telephone No	Res:		Mob:	
5.	E-mail address				
6.	Sanctioned Load				
7.	Capacity of Rooftop Solar PV System proposed to be connected				
8.	Whether the Consumer is under ToD billing system				Yes/No
	(Owner of the premises)				
9.	Whether the Consumer or third party owner shall avail				Yes/No
	accelerated depreciation benefits on the Rooftop Solar PV system				
10.	Type of Rooftop Solar PV System proposed (Gross/Net metering)				
11.	Location and address of Proposed Rooftop Solar PV System (roof				
	top, ground mounted, any other – specify)				
12.	Preferred mode of Communication				
	(Post/ By Hand/ Electronic etc. – specify)				
Place:			Signature of Eligible Consumer/Third Party owner		

ACKNOWLEDGEMENT

Application Number ……

Received the application for connectivity of Rooftop Solar PV System

Name: …… CA. No.: ……..

Date ……, Time ……, Serial No. ……

Application Fee Paid or Not: ……

Rooftop Solar PV Plant Capacity……..

Mode of payment (Cheque / DD/RTGS/NEFT): ……..

Details of Cheque /DD/RTGS/NEFT: ……

Name of Officer
Seal

Signature
(Designation of Officer)
(To be specified at the time of signing)

	Annexure-II	
	APPLICATION FEES	
S.No.	**Connected Load / Contract Demand of Eligible Consumer**	**Amount**
1.	Up to 50 kW / 63 kVA	Rs 250
2.	Above 50 kW and up to 1 MW	Rs 750
3.	Above 1 MW (for upto each additional MW)	Rs 750

The amount of application fee for eligible consumer and third party other than the owner of the premises shall be the amount mentioned above.

REGISTRATION FEES

S.No.	**Connected Load / Contract Demand of Eligible Consumer**	**Amount**
1.	Up to 50 kW / 63 kVA	Rs 1000
2.	Above 50 kW and up to 1 MW	Rs 2500
3.	Above 1 MW (for upto each additional MW)	Rs 2500

The amount of registration fee for eligible consumer and third party other than the owner of the premises shall be the amount mentioned above.

Annexure-III

APPLICATION FOR REGISTRATION OF THE SCHEME FOR ROOFTOP SOLAR PV SYSTEM

1.	Name	
2.	Address for Communication	
3.	Consumer No.,	
4.	Telephone No.,	
5.	E-Mail	
6.	Application No.	
7.	Serial No. of receipt of Application	
8.	Contract Demand of Consumer	
9.	Capacity of Rooftop Solar PV System to be connected (Capacity not to exceed as approved by the Distribution Licensee and as per RSPV Regulations 2015)	
10.	Technical specifications and other particulars of Renewable Panel, Grid Tied Inverter and Interlocking System etc. proposed to be installed – whether attached (Yes/No)	
11.	Technical specifications and other particulars of Renewable energy meter to be installed – whether attached (Yes/No)	
12.	Whether Consumer opts to purchase meter himself or from Distribution Licensee	
13.	Drawings for installing the Rooftop Solar PV System – whether attached (Yes/No)	
14.	Proposed date of completion of the installation	

Place: Signature of Eligible Consumer/ Third Party Owner

ACKNOWLEDGEMENT

Received the application for registration of the scheme for Rooftop Solar PV System

Name: ……..

Date: ……..

Registration Number: ……..

Consumer Number: ……..

Solar Energy Plant Capacity: ……..

Mode of payment (Cheque / DD/RTGS/NEFT): ……..

Details of Cheque/DD/RTGS/NEFT: ……..

Name of Officer **Signature**

Seal **(Designation of Officer)**

Annexure-IV

INFORMATION RELATED TO TECHNICAL & INTERCONNECTION STANDARDS

Parameter	Reference	Requirement
Overall conditions of service	State Distribution/Supply Code	Reference to State Distribution code
Overall Grid Standards	Central Electricity Authority (Grid Standard) Regulations 2010 and subsequent amendments thereof;	Reference to regulations
Equipment	BIS/IEC/IEEE	Reference to standards
Meters	Central Electricity Authority (Installation & operation of meters) Regulation 2006 and subsequent amendments thereof	Reference to regulations and additional conditions issued by the Commission.
Safety and supply	Central Electricity Authority (measures of safety and electricity supply) Regultions,2010 and subsequent amendments thereof	Reference to regulations
Harmonic Current	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	Harmonic current injections from a generating station shall not exceed the limits specified in IEEE 519
Synchronization	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	Rooftop Solar PV System must be equipped with a grid frequency synchronization device. Every time the generating station is synchronized to the electricity system. It shall not cause voltage fluctuation greater than +/- 5% at point of connection
Voltage	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	The voltage operating window should minimize nuisance tripping and should be under operating range of 80% to110% of the nominal connected voltage. Beyond a clearing time of 2 sec the Rooftop Solar PV System must isolate itself from the grid
Flicker	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	Operation of Rooftop Solar PV System should not cause voltage flicker in excess of the limits stated in IEC 61000 standards or other equivalent Indian standards, if any
Frequency	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	When the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5 Hz on lower side), There should be over and under frequency trip functions with a clearing time of 0.2 sec
DC injection	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	Rooftop Solar PV System should not inject DC power more than 0.5% of full rated output at the interconnection point or 1% of rated inverter output current into distribution system under any operating conditions.
Power factor	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	While the output of the inverter is greater than 50%, a lagging power factor of greater than 0.9 should operate
Islanding and Disconnection	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations	The Rooftop Solar PV System in the event of fault, voltage or frequency variations must island/disconnect itself within IEC standard on

Parameter	Reference	Requirement
	2013 and Subsequent amendments thereof;	stipulated period.
Overload and Overheat	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	The inverter should have the facility to automatically switch off in case of overload or overheating and should restart when normal conditions are restored.
Paralleling Device	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013 and Subsequent amendments thereof;	Paralleling device of Rooftop Solar PV System shall be capable of withstanding 220% of the normal voltage at the interconnection point.

Annexure-V (A)

Inter connection agreement (Gross Metering Arrangement)

This Agreement is made and entered into at (location) ……..on this (date) ……..day of (month) ……..year ……..between

The Eligible Consumer or third party owner, by the name of ……..……..……..……..……..……..……...owning or leasing or having commerce rights to the premises at (address) ……..……..……..……..……..……..……..as first party

AND

Distribution Licensee (herein after called as Licensee) and represented by ……..……..……..…….. (Designation of office) and having its registered office at (address) ……..……..……..…….. as second party of the agreement

And whereas, the ……..……..……..…….. (Name of the Licensee) agrees to provide grid connectivity to the eligible consumer for injection of the electricity generated from his RSPV plant of capacity …….. kWs into the power system of Licensee and as per conditions of this agreement and net- metering regulations/orders issued by the Uttar Pradesh Electricity Regulatory Commission.

Both the parties hereby agree to as follows:

1. Eligibility

1.1. Eligibility for gross metering arrangement has been specified in the UPERC (Rooftop Solar PV Grid Interactive System Gross / Net Metering) Regulations, 2019 (hereinafter referred to as RSPV Regulations, 2019). Eligible consumer or third party owner is required to be aware, in advance, of the standards and conditions his system has to meet for being integrated into grid/distribution system.

2. Technical and Interconnection Requirements

2.1. The First Party agrees that his Rooftop Solar PV generation plant gross metering system will conform to the standards and requirements specified in these regulations and in the following Regulations and codes as amended from time to time.

i. Central Electricity Authority (Technical Standards for connectivity of the Distributed Generating Resources) Regulations, 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 of Safety and Electricity Supply) Regulations, 2010 and subsequent amendments thereof;

iv. UPERC Electricity Grid Code, 2007 and subsequent amendments thereof;

v. UPERC (Grant of Connectivity to intra-State Transmission System) Regulations, 2010 and subsequent amendments thereof to the extent specified in the UPERC RSPV Regulations, 2019;

vi. UPERC Supply Code Regulations 2005 and subsequent amendments thereof;

vii. Any other provisions applicable to the electricity consumer of the Distribution Licensee.

2.2. First Party agrees that he has installed or will install, prior to connection of Photovoltaic system to Licensee's distribution system, an isolation device (both automatic and inbuilt within inverter and external manual relays) and agrees for the Licensee to have access to and operation of this, if required and for repair & maintenance of the distribution system.

2.3 First Party agrees that in case of a power outage Licensee's system, photovoltaic system will disconnect/isolate automatically and his plant will not inject power into Licensee's distribution system.

2.4. All the equipment connected to distribution system shall be compliant with relevant International (IEEE/IEC) or Indian standards (BIS) and installations of electrical equipment must comply with Central Electricity Authority (Measures of Safety and Electricity Supply) Regulations, 2010.

2.5. First Party agrees that Licensee will specify the interface/interconnection point and metering point.

2.6. First Party and Second Party agree to comply with the relevant CEA and UPERC Regulations in respect of operation and maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage, frequency, flicker etc.

2.7. Due to Licensee's obligation to maintain a safe and reliable distribution system, First Party agrees that if it is determined by the Licensee that the respective owner's photovoltaic system either causes damage to and/or produces adverse effects affecting other consumers or Licensee's assets, First Party will have to disconnect photovoltaic system immediately from the distribution system upon direction from the Licensee and correct the problem at his own expense prior to a reconnection.

3. Clearances and Approvals

3.1. The First Party agrees to obtain all the necessary approvals and clearances (environmental and grid connection related) before connecting the photovoltaic system to the distribution system.

4. Access and Disconnection

4.1. Licensee shall have 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, Licensee may disconnect service to the premises of the eligible consumer.

5. Liabilities

5.1. Eligible consumer and Licensee will indemnify each other for damages or adverse effects from either party's negligence or intentional misconduct in the connection and operation of photovoltaic system or Licensee's distribution system.

5.2. Licensee and eligible consumer will not be liable to each other for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for indirect, consequential, incidental or special damages, including, but not limited to, punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, or otherwise.

5.3. Licensee shall not be liable for delivery or realization by eligible consumer 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. The Licensee may consider the quantum of electricity generation from the Rooftop Solar PV system towards RPO.

6. Commercial Settlement

6.1. All the commercial settlement under this agreement shall follow the RSPV Regulations, 2019 issued by the UPERC.

7. Connection Costs

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

8. Termination

8.1. The First Party can terminate agreement at any time by providing Licensee with 90 days prior notice.

8.2. Licensee has the right to terminate Agreement on 30 days prior written notice, if First Party commits breach of any of the term of this Agreement and does not remedy the breach within 30 days of receiving written notice from Licensee of the breach.

8.3. First Party shall upon termination of this Agreement, disconnect the photovoltaic system from License's distribution system in a timely manner and to Licensee's satisfaction.

In witness, whereof, Mr. …… for and on behalf of (Eligible consumer or third party owner) and Mr. …… for and on behalf of (Licensee) sign this agreement in two originals.

Eligible Consumer/ Third Party	**Distribution Licensee**
Name	Name
Address	Designation
Service connection No.	Office Address

Annexure-V (B)

Inter connection agreement (Net Metering Arrangement)

This Agreement is made and entered into at (location) ……..on this (date) ……..day of (month) ……..year ……..between

The Eligible Consumer(s) by the name of ……..……..……..……..……..……..…...having or leasing the premises at (address) ……..……..……..……..……..……..as first party

AND

Distribution Licensee (herein after called as Licensee) and represented by ……..……..……..…….. (Designation of office) and having its registered office at (address) ……..……..……..…….. as second party of the agreement

And whereas, the ……..……..……..…….. (Name of the Licensee) agrees to provide grid connectivity to the eligible consumer for injection of the electricity generated from his RSPV plant of capacity …….. kWs into the power system of Licensee and as per conditions of this agreement and net- metering regulations/orders issued by the Uttar Pradesh Electricity Regulatory Commission.

Both the parties hereby agree to as follows:

1. Eligibility

1.1. Eligibility for net-metering has been specified in the UPERC (Rooftop Solar PV Grid Interactive System Gross / Net Metering) Regulations, 2019 (hereinafter referred to as RSPV Regulations, 2019). Eligible consumer is required to be aware, in advance, of the standards and conditions his system has to meet for being integrated into grid/distribution system.

2. Technical and Interconnection Requirements

2.1. The eligible consumer agrees that his Rooftop Solar PV generation plant and net metering system will conform to the standards and requirements specified in these regulations and in the following Regulations and codes as amended from time to time.

i. Central Electricity Authority (Technical Standards for connectivity of the Distributed Generating Resources) Regulations, 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 of Safety and Electricity Supply) Regulations, 2010 and subsequent amendments thereof;

iv. UPERC Electricity Grid Code, 2007 and subsequent amendments thereof;

v. UPERC (Grant of Connectivity to intra-State Transmission System) Regulations, 2010 and subsequent amendments thereof to the extent specified in the UPERC RSPV Regulations, 2019;

vi. UPERC Supply Code Regulations 2005 and subsequent amendments thereof;

vii. Any other provisions applicable to the electricity consumer of the Distribution Licensee.

2.2. Eligible consumer agrees that he has installed or will install, prior to connection of Photovoltaic system to Licensee's distribution system, an isolation device (both automatic and inbuilt within inverter and external manual relays) and agrees for the Licensee to have access to and operation of this, if required and for repair & maintenance of the distribution system.

2.3 Eligible consumer agrees that in case of a power outage on Licensee's system, photovoltaic system will disconnect/isolate automatically and his plant will not inject power into Licensee's distribution system.

2.4 All the equipment connected to distribution system shall be compliant with relevant International (IEEE/IEC) or Indian standards (BIS) and installations of electrical equipment must comply with Central Electricity Authority (Measures of Safety and Electricity Supply) Regulations, 2010.

2.5. Eligible consumer agrees that Licensee will specify the interface/interconnection point and metering point.

2.6. Eligible consumer and Licensee agree to comply with the relevant CEA and UPERC Regulations in respect of operation and maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage, frequency, flicker etc.

2.7. Due to Licensee's obligation to maintain a safe and reliable distribution system, eligible consumer agrees that if it is determined by the Licensee that eligible consumer's photovoltaic system either causes damage to and/or produces adverse effects affecting other consumers or Licensee's assets, eligible consumer will have to disconnect photovoltaic system immediately from the distribution system upon direction from the Licensee and correct the problem at his own expense prior to a reconnection.

3. Clearances and Approvals

3.1. The eligible consumer agrees to obtain all the necessary approvals and clearances (environmental and grid connection related) before connecting the photovoltaic system to the distribution system.

4. Access and Disconnection

4.1. Licensee shall have 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, Licensee may disconnect service to the premises of the eligible consumer.

5. Liabilities

5.1. Eligible consumer and Licensee will indemnify each other for damages or adverse effects from either party's negligence or intentional misconduct in the connection and operation of photovoltaic system or Licensee's distribution system.

5.2. Licensee and eligible consumer will not be liable to each other for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for indirect, consequential, incidental or special damages, including, but not limited to, punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, or otherwise.

5.3. Licensee shall not be liable for delivery or realization by eligible consumer 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. The Licensee may consider the quantum of electricity generation from the Rooftop Solar PV system towards RPO.

6. Commercial Settlement

6.1. All the commercial settlement under this agreement shall follow the RSPV Regulations, 2019 issued by the UPERC.

7. Connection Costs

7.1. 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 cost of modifications and upgrades to the service line required to connect photovoltaic system to the grid in case it is required.

8. Termination

8.1. The eligible consumer can terminate agreement at any time by providing Licensee with 90 days prior notice.

8.2. Licensee has the right to terminate Agreement on 30 days prior written notice, if eligible consumer commits breach of any of the term of this Agreement and does not remedy the breach within 30 days of receiving written notice from Licensee of the breach.

8.3. Eligible consumer shall upon termination of this Agreement, disconnect the photovoltaic system from Licensee's distribution system in a timely manner and to Licensee's satisfaction.

In witness, whereof, Mr. …… for and on behalf of (Eligible consumer) and Mr. …… for and on behalf of (Licensee) sign this agreement in two originals.

Eligible Consumer	**Distribution Licensee**
Name	Name
Address	Designation
Service connection No.	Office Address

Uttar Pradesh Solar Energy Policy-2017

Table of Contents

Uttar Pradesh Solar Energy Policy -2017

Preamble :

India is a tropical country, which receives adequate solar radiation for 300 days. However, solar power has not been able to contribute to a significant share in the Indian energy mix. The Power generation capacity through Solar PV systems in country stands at 12500megawatt (as of April, 2017) of the total 329000Megawatt capacity installed in the country. The market for solar power is, however, set to grow significantly due to improved economics of solar projects and rise in the prices of the fossil fuels. Power generation from solar energy will receive promotion in the light of Government of India's commitment to generate40% of the country's electric power from renewable sources by year 2030 and which includes targeted generation of 100000megawatt from solar power by year 2022, of which 40000megawatt is to be achieved through installation of solar rooftop projects. Additionally, the amendment in the National Tariff Policy in 2016 also targets to achieve 8% contribution from solar energy in the total state mix (excluding generation of hydro power) by year 2021.

To achieve a sustainable development route that provides for advancement in economic as well as environmental objectives, the Government of Uttar Pradesh is determined and is taking necessary steps to encourage the generation based on renewable energy sources. The State has a Solar energy potential of22300megawatt capacity, which the State intends to harness to meet the energy requirements of the State and to achieve Solar Power generation target fixed by Ministry of New and Renewable Energy(MNRE) ,Government of India of 10700 megawatt.(inclusive of target of 4300 megawatt fixed for Solar Rooftop projects).