#### Form-1

# ( see sub-regulation (1) of regulation 7 of HPERC) **Net Metering Application**

То

Designated officer*
(Name of office)
Date

I/We herewith apply for a solar energy net metering connection at the service connection and for the Rooftop Solar PV Plant, detail of which are given below.

1	Name of consumer/firm/industry/institutions/office etc.	
2	Location of plant.	
3	Account No.	
4	K –No.	
5	Sanctioned Connected Load (kW)	
6	Sanctioned Contract Demand (kVA)	
7	Applicable tariff /category	
8	Telephone Number	
9	Email ID	
10	Rooftop Solar PV Plant Capacity (kWp)	
11	Solar grid inverter make and type	
12	Solar grid inverter has automatic isolation protection (Y/N)	
13	Has a Solar Generation Energy Meter been installed (Y/N)	
14	Expected date of commissioning of Solar PV System	

Name :-	
Signature	

\_\_\_\_\_

# **Net Metering Application Acknowledgement**

Received an application for a solar energy net-metering connection from.

Name : Date : Account No. : K-Number

Application registration No. :

Solar Plant Capacity : Name of Officer :

Signature

Designation/Distribution Licensee

# TECHNICAL DATA FORM FOR FEASIBILITY CLEARANCE OF ROOF TOP SPV POWER PLANT Form -B

(to be filled by JE/AAE of the area)

1	Name of Consumer	
2	Address/Location of Consumer/Location	
3	Contact No. and E-mail ID	
4	Account No.	
5	Name of Sub-Division with Code	
6	Name of Division with Code	
7	Name of Circle with Code	
8	Sanctioned load/CD OF Consumer with supply	
	voltage	
9	Category D/S,C/S,NDNC, Ind. /Agri.	
10	Capacity of proposed SPV Plant in kWp/kVp (it	
	should not be more 80% of the sanctioned load/CD	
	for individual consumer covered under two parts tariff	
	& shall be 30% of the sanctioned connected load in	
	case of an individual consumer covered under single	
	part tariff)	
11	Name and code of Distribution Transformer	
	i)Capacity of Distribution Transformer	
	ii)Connected Load kW/kVA	
	iii)Maximum Demand in Amps	
	iv)No. of LT Circuits	
12	i)Length of LT Feeder (mtrs)	
	ii)Size of conductor (sq.mm)	
	iii)Maximum Demand in Amps	
13	i)Name of feeder with code	
	ii)Size of Conductor/Capacity	
14	Name of feeding s/stn with code	
15	SPV PPs already connected on this distribution	No. of SPV PPs
	transformer (in kW/kVA	Total capacity in kW/kVA
16	No. of pending SPVPPs to be connected on the T/F	No. of SPVPPs
		Total capacity in kW/kVA
17	Capacity of proposed SPVPP on the T/F in kW/kVA	
18	Total load on this T/F (in KW/KVA)= Sum total of	No. of SPVPPs
	columns (15+16+17) should not be more than 30%	Total capacity in kW/kVA
	of the capacity of T/F	
19	Voltage level at which the consumer is being fed	
20	Recommendation of Field Office :0	
	(Whether capacity of SPVPP as per column 10	kW/kVA
	approved or not, if approved mention the approved	
	capacity, if not assign the reasons	

Date

Signature of Authorized officer

Signature of HPSEBL Official

#### Form-C

## **Letter of Approval**

To

	Mr./Ms/M/s	
	A/c No	
	Memo No:	Dated:
Ref:	Your request of RID No	
	Your request for installing Roo	ftop PV system forKWP capacity is considered and approval

is accorded with the following conditions:-

- 1. You shall set up the plant and submit the work completion report along with Single Line Diagram of the synchronizing and protection arrangement issued by the plant supplier/EPC contractor duly approved by HIMURJA, that the plant has been installed as per approved standard and specification within 180 days. In case of delay you shall have to get further extension from HPSEBL. Such Extension will be granted for a maximum period of 2-months only and the approval granted will lapse automatically if the project is not set-up even in the extended 2-months period. However you will be eligible to apply in the next financial year but your application will be kept at the bottom of the list of application and you will be permitted to set-up the plant only if all the applicant above you are selected and there is still capacity available for allotment.
- 2. You will abide by the guidelines on net metering for Grid Interactive Rooftop solar Photo Voltaic Power Plant issued by Govt. of HP/HPERC/HPSEBL.
- 3. The Solar plant shall comply with the relevant standards specified by the MNRE/BIS and CEA. The responsibility of operation and maintenance of the solar photo voltaic (SPV) generator including all accessories and apparatus lies with the consumer. The design and installation of the rooftop SPV should be equipped with appropriately rated protective devices to sense any abnormality in the system and carry out automatic isolation of the SPV from the grid. The inverter used should meet the necessary quality requirements and should be certified for their

quality by appropriate authority, the protection logics should be tested before commissioning of the plant.

4. The automatic isolation or islanding protection of SPV should be ensured for no grid supply and low or over voltage conditions within the required response time. Adequate rated fuses and fast acting circuit breakers on input and output side of the inverters and disconnect/isolating switches to isolate DC and AC system for maintenance shall be provided. The consumer should provide for all internal safety and protective mechanism for earthling surge, DC ground fault, transients etc.

To prevent back feeding and possible accidents when maintenance works are carried out by HPSEBL personnel, Double pole/Triple pole with neutral isolating disconnecting switches which ever applicable can be locked by HPSEBL personnel should be provided. This is in addition to automatic sensing and isolating on grid supply failure etc and in addition to internal disconnecting switches. In the event of HPSEBL LT/HT supply failure, the consumer has to ensure that there will not be any solar power being fed to the LT/HT grid of HPSEBL. You will be solely responsible for any accident to human beings/animals whatsoever (fatal/non fatal/departmental/non departmental) that may occur due to back feeding from the SPV plant when the grid supply is off. HPSEBL have the right to disconnect the rooftop solar system at any time in the event of possible threat/damage, from such rooftop solar system to its distribution system, to prevent any accident or damage, without any notice.

You shall abide by all the codes and regulations issued by the commission to the extent applicable and in force from time to time and shall comply with HPERC/HPSEBL/CEA requirements with respect to safe, secure and reliable functioning of the SPV plant and the grid. The power injected into the grid shall be of required quality in respect of wave shape, frequency, absence of DC components etc.

The inverter standard shall be such that it should not allow solar power/battery power to extend to HPSEBL's Grid on failure of HPSEBL's Grid supply irrespective of connectivity options.

You shall restrict the harmonic generation within the limit specified in IEEE 519 or as may be specified by the Central Electricity Authority.

	AE/AEEE/SR.XEN/SE/Dy.CE
C	of Sub division/Division/Circle
Н	IPSEBL

# **Agreement From for Solar Roof-top Net Metering**

This Agreement is made and entered into at (location)on this
(date)between
who is a consumer of the distribution licensee with sanctioned contract demand
ofas First party, andas First party, andas First party, andas First party, andas First party, and
(Name of Discom.)
and having its registered office atas Second party of
the agreement.
And whereas the(Name of discom,)agrees to facilitate the Rooftop Solar PV Energy Generator for the electricity generated from his Rooftop Solar PV Grid Interactive System of capacitywatts and as per the conditions of this agreement and net – metering regulations/orders issued by the Himachal Pradesh Electricity Regulatory Commission.

Both the parties hereby agree to as follows;

# 1. Eligibility

1.1 Eligibility for net – metering shall be as specified in the Himachal Pradesh Electricity Regulatory Commission (Rooftop Solar PV Grid Interactive System based on Net Metering) Regulation, 2015. First Party 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** First Party agrees that his Solar PV generation plant and net metering system will confirm to the Standards and requirements mentioned in the following Regulations, codes . LOA and any other relevant provisions and also that he shall be continued to be governed by all such regulations, codes and other relevant provisions;
  - I) The Central Electricity Authority (Technical Standards for connectivity of the Distributed Generating Resources) Regulations, 2013;
  - ii) The Central Electricity Authority (Installation and Operation OF meters), Regulation 2006;
  - iii) The Himachal Pradesh Electricity Distribution Code, 2008.
  - iv) The Himachal Pradesh Electricity Supply Code, 2009 & further amended in 2014.
  - v) any other provision 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 Second Party's distribution system, an isolation device (both automatic and

- **2.3** inbuilt within inverter in case of Solar PV Generation and external manual relays) and agrees for the Second Party to have access to and operation of this, if required and for repair -------(Name of Discom.)------and maintenance of the distribution system.
- **2.4** First party agrees that in case of a power outage on Second Party's system, Photovoltaic System will shut down, automatically and his plant will not inject power into distribution system.
- **2.5** All the equipments connected to distribution system must be compliant with relevant international (IEEE/IEC) or Indian standards (BIS) and installations of electrical equipment must comply with the Central Electricity Authority (Measures of Safety AND Electricity Supply) Regulation, 2010.
- **2.6** First Party agrees that licensee will specify the interface/interconnection point and metering point.
- **2.7** First Party and Second Party agrees to comply with the relevant CEA regulations in respect of operation and maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage frequency, flicker etc.
- 2.8 Due to Second Party obligation to maintain a safe and reliable distribution system, eligible consumer agrees that if it is determined by the Second Party that First Party's Photovoltaic System either caused damage to and/or produce adverse effects affecting other consumers or Second Party's assets, First Party will have to disconnect Photovoltaic System immediately from the distribution system upon direction from the Second Party and correct the problem at his own expense prior to a reconnection.

### 3. Clearance and Approvals

**3.1** 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** Second Party shall have access to metering equipment and disconnecting means of Photovoltaic System, both automatic and manual, at all times.
- **4.2** In emergency or outage situation, where there is no access to a disconnecting means, both automatic and manual, such as a switch or breaker, Second Party may disconnect service to the premise.

### 5. Liabilities

- **5.1** First Party and Second Party will indemnify each other for damages or adverse effect from either party's negligence or intentional misconduct in the connection and operation of Photovoltaic System or Second Party distribution system.
- 5.2 Second Party and First Party will not liable to each other for any loss, profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for indirect, consequential incidental or special damages of the said liability, loss or damage arise in contract, or otherwise.

**5.3** Second Party shall not be liable for delivery or realization by First Party for any fiscal or other incentive provided by the Central/State Government beyond the scope specified by the Commission in its relevant order.

# **6. Commercial Settlement**

**6.1** All the commercial settlement under this agreement shall follow the Net – Metering Regulations and relevant Orders of Himachal Pradesh Electricity Regulatory Commission.

#### 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 the Photovoltaic System in case it is required.

#### 8. Termination

- **8.1** The First Party can terminate agreement at any time by providing Second Party with 90 days prior notice.
- **8.2** Second Party has the right to terminate Agreement on 30 days prior written notice, if eligible consumer breaches a term of this Agreement and does not remedy the breach within 30 days of receiving written notice from Second Party of the breach.
- **8.3** First Party agrees that upon termination of this Agreement, he must disconnect the Photovoltaic System from Second Party distribution system in a timely manner and to Second Party's satisfaction.

In the witness, where of Mrfor and	d on behalf of First Party and Mrfor
Second Party sign this agreement in two	originals.

First Party Second Party Name Name

Address Office Address

K. Number of consumer Account No. of consumer

Designation