

**NEW & RENEWABLE ENERGY DEPARTMENT, HARYANA**  
Akshay Urja Bhawan, Institutional Plot No. 1, Sector-17, Panchkula  
PHONE: EPBX: 0172-2587233, 2587833  
Email: hareda@chd.nic.in Website: www.hareda.gov.in

To

1. The Additional Chief Secretary,  
to Government Haryana,  
Revenue Department, Chandigarh
2. The Additional Chief Secretary,  
to Government Haryana,  
Power Department, Chandigarh
3. The Additional Chief Secretary,  
to Government Haryana,  
Development and Panchayat Department, Chandigarh
4. The Additional Chief Secretary,  
to Government Haryana,  
Town & Country Planning Department, Chandigarh
5. The Additional Chief Secretary,  
to Government Haryana,  
Planning & Finance Department, Chandigarh
6. The Principal Secretary to Government Haryana,  
Industry & Commerce Department, Chandigarh
7. The Principal Secretary,  
to Government Haryana,  
Urban Local Bodies Department, Chandigarh

Memo No. NRE/2021/48415-51

Dated: 22.04.2021

**Subject: Regarding comments on the Draft Haryana Solar Power Policy, 2021.**

As per orders of Hon'ble CM, the Draft Haryana Solar Power Policy, 2021 (Amendment of Haryana Solar Power Policy 2016) has been prepared by Department of New & Renewable Energy, which is attached herewith. Comments of the Stakeholders are invited on the draft Policy.

You are therefore requested to kindly give your comments on draft Haryana Solar Power Policy-2021 within 15 days so that the Policy may be finalized.



(R. BIRTHAL)  
Project Officer  
For Director General,  
New & Renewable Energy Department/  
HAREDA, Sector 17, Chandigarh

Enc.: As above



Endst. No.

NRE/2021/ 4852

dated: 22.04.2021

Copy of the above is forwarded to the programmer for uploading the Draft Haryana Solar Power Policy, 2021 for inviting comments of stakeholders.



(R. Birthal)

Project Officer

For Director General,

New & Renewable Energy Department/  
HAREDA, Sector 17, Chandigarh



**Government of Haryana**  
**New and Renewable Energy Department**

**Haryana Solar Power Policy, 2021 (DRAFT).**

**CHAPTER-I (INTRODUCTION)**

Solar energy is emerging as a major source of energy for the future which is pollution free & a green source of energy. India is blessed with tremendous potential for solar energy generation. Accordingly the Government of India announced the Jawaharlal Nehru National Solar Mission (JNNSM) in 2010 to encourage the economic growth of solar power to meet energy challenges in India and to address the growing impacts of climate change at local and national levels. The initial target of the mission was to install 20 GW capacity of solar energy in three phases by 2020 and later revised to 175 GW RE power with 100 GW solar power by 2022. Government of India has revised the target again to install 480 GW RE power with 280 MW of solar power by 2030. Another essential objective of JNNSM is to make India a global leader in solar energy by enhancing confidence in power developers, promoting manufacturing in solar sectors, and deploying large-scale goals with adequate policy framework.

The Government of Haryana considers solar energy as vital form of energy in the State to address the growing impacts of climate change at local and national levels. It has the potential of not only lowering the state's expenditure on energy but also have potential to reduce transmission & distribution losses. Considering these facts, the Government of Haryana notified "Haryana Solar Policy 2016", by extending various benefits to Solar Project Developers and users.

With advancement of technology, various regulatory developments across the sector, to address the issues faced by Discoms & Project Developers and in the current scenario to further accelerate the development of Solar Energy in the State by means of establishment of large scale projects, solar parks and small scale distributed systems, the Govt of Haryana envisages a new policy framework and hence decided to revise its existing solar policy.

**1.1 Preamble**

In order to align with Central Government ambitious mission for India's Solar PV capacity expansion programme, the State Government is committed to accelerate the development of solar power by means of implementation of solar parks, large-scale projects and small scale solar based decentralized devices & systems.

Haryana being Agrarian State and with several geographical constraints such as high cost & paucity of barren land within its borders , low potential for wind or hydro power, State must focus mainly on rooftop solar projects and small scale distributed solar systems besides exploring the potential of mega watt scale solar projects and parks. The state is blessed with high solar radiation levels with more than 300 days of clear sunlight and seeks to harness the untapped and inexhaustible solar energy potential in the state.

Rooftop solar systems offer sustainable energy, environmental benefits, low gestation period, low transmission and distribution losses, reduced need for distribution infrastructure, and peak load offset to certain extent that reduces costs for the DISCOMs and ultimately for the consumers as well.

Open access consumers and Discoms are among major stakeholders using solar power to fulfil their energy demand as well as renewable purchase obligations. Therefore, challenges of such consumers are to be addressed through a suitable regulatory and policy framework.

The policy framework will address the issues related to metering of solar projects and efforts shall be made for investment friendly conducive environment for promotion of solar power in the State.

Efforts are also made to promote the usage of Solar Energy with suitable incentives and policy framework for Agriculture sector and for solarisation of Electrical Vehicle (EV) charging stations to promote the penetration of Electrical Vehicles in the State.

The policy shall also focus on recognition & development of energy efficient SPV technologies and promotion of R&D in the solar energy sector.

## **1.2 Vision**

In an environment where the demand for energy and power is growing rapidly, the State intends to meet its sustainable development Goals (SDG) by advancing the development of Solar Energy in a manner that would position it as mainstream source of energy supply as well as primary contributor to the National target of 100 GW solar capacity and 175 GW Renewable Energy capacity by 2022 and further extended National target of 280 GW solar capacity and 450 GW Renewable Energy capacity by 2030, as a part of India's Global commitment, despite various geographical constraints being agrarian State. The State therefore seeks to:

- a) Promote generation of green and clean power.
- b) Create conducive environment for the participation of the private as well as public sector in the setting up of solar energy projects in the State.
- c) To encourage and promote a feasible investment environment for the same.
- d) Spread environmental consciousness among all citizens of the State.
- e) Aim for a decentralized and diversified management of the energy sector.
- f) To work consistently towards an increase of the share of the solar power in the energy mix of the State.
- g) To attain its target of Soar Renewable Purchase Obligation (Solar RPO).
- h) To ultimately create a technology driven State through outreach programmes, employment generation, promotion of R&D in the Solar energy sector including identification of new areas such as solarisation of EV charging stations, usage of Solar energy in Agriculture sector etc.

## **1.3 Title and Implementation:**

- 1.3.1 This policy will supersede the **Haryana Solar Power Policy, 2016.**
- 1.3.2 This policy will be known as **Haryana Solar Power Policy, 2021.**

- 1.3.3 The policy will come into operation with effect from the date of its notification and will remain in force till a new Policy is notified. .
- 1.3.4 The State Government may undertake review of this policy as and when the need arises in view of any technological breakthrough or to remove any inconsistency with Electricity Act, Rules & Regulation made thereof or any Government of India policy/State Electricity Regulatory Commission's order.
- 1.3.5 The Solar Power Systems (SPS) installed and commissioned during the operative period shall be eligible for the benefits and incentives declared under this policy, for a period of 25 years from their date of commissioning or for the life span of SPS, whichever is earlier, unless until notified by the State Government.
- 1.3.6 The entity desiring to setup a solar power project shall submit a proposal, with requisite details, as per relevant scheme guidelines, to New and Renewable Energy Department, Haryana / HAREDA or to the Department/ Agency authorized to do so by the State Government, for qualifying for the benefits/ facilitation under this policy.
- 1.3.7 Only new plant and machinery shall be eligible for installation under this policy. In case of Solar thermal power projects, fossil fuel beyond the ceiling allowed under MNRE shall not be used. No fossil fuel shall be allowed.

#### **1.4 Objectives:**

The objectives of this policy are:

- 1.4.1 To add ground mounted solar power in the State.
- 1.4.2 To achieve the Renewable Purchase Obligation (RPO) of Solar Power of Discoms as determined by HERC.
- 1.4.3 To facilitate development of Solar Parks and Solar Power Projects for sale of power to Discoms of Haryana and/or for captive consumption/third party sale by Consumers/Independent Power Producers, within and outside the State.
- 1.4.4 Promotion of Decentralized Grid Connected Solar Power Projects at load centers.
- 1.4.5 Promotion of Rooftop Solar Projects through Net Metering and Gross Metering mechanism or in any other manner as per the provisions of the Electricity Act, 2003 and relevant Regulations/Orders issued by HERC/ CERC.
- 1.4.6 Promotion of Off-Grid Solar applications like Solar Water Pumps, home lighting systems, water heater, etc.
- 1.4.7 Promotion of solar energy projects with storage systems.
- 1.4.8 To facilitate solarization of Electric Vehicles (EV) charging stations.
- 1.4.9 Strengthening of transmission and distribution network for facilitation of solar energy projects.
- 1.4.10 Promotion of R&D Activities
- 1.4.11 Promotion of manufacturing industries of solar energy equipments and storage systems.
- 1.4.12 Promotion of solar projects based on canal top/ canal banks/water works/ reservoir etc.
- 1.4.13 To promote generation of green and clean power in the State using solar energy.

- 1.4.14 To create conditions conducive to the participation of private and public sector as well as Public Private Partnership (PPP) in the promotion and setting up of up Solar Energy based power projects in the State.
- 1.4.15 Productive use of wastelands / non – agricultural lands thereby leading to socio-economic transformation and a reduction in regional disparities in development.
- 1.4.16 Employment generation and skill up gradation of the youth.
- 1.4.17 Co-creation of solar centres of Excellence and pools of technical professionals which would work towards applied research and commercialization of indigenous and cutting edge technologies involving applications of solar energy generation and appliances.
- 1.4.18 Spreading of environmental consciousness among all citizens of the State especially the youth and school going children.
- 1.4.19 Decentralization and diversification of the energy portfolio and to increase the share of renewable solar power.
- 1.4.20 To meet the renewable energy requirement of Solar Cities.
- 1.4.21 To increase income of farmers by installation of solar power plants for sale of power and also by providing solar power in day time for agricultural activities.

## **1.5 Solar Renewable Energy Purchase Obligation (RPO):**

### **1.5.1 RPO of Discoms:**

The capacity installation targets for the Discoms shall be based on the Renewable Power Purchase Obligation (RPO) defined by Haryana Electricity Regulatory Commission from time to time. To achieve the solar RPO, following initiatives shall be taken by the Govt.:-

- a) Installation of ground mounted MW scale solar power plants.
- b) Installation of solar power plants by the Haryana Power Generation Corporations on its land or on Govt./panchayat/private land.
- c) Development of solar parks.
- d) Facilitation of installation of solar power plants under schemes of Ministry of New & Renewable Energy like Viability Gap Funding (VGF) scheme, Prime Minister Kisan Urja Suraksha evam Uthaan Mahabhiyaan (PM-KUSUM) scheme and purchase of power under bundling scheme of National Vidyut Vyapar Nigam Ltd. (NVVNL)/NTPC or any such scheme launched by Centre and State Govt. from time to time.
- e) Installation of solar power plants on canal top/ canal banks/ water works/ reservoirs etc.
- f) Rooftop grid connected solar power plants through net metering and Gross metering.
- g) Rooftop grid connected solar power plants on cluster of Govt. /PSU buildings/ establishments.

The regulators i.e. CERC/HERC will recognize the entire cost incurred toward the purchase of solar power in the ARR order issued from time to time.

### **1.5.2 RPO of other consumers/ obligated entities**

- a) Consumers shall be allowed to setup projects to fulfil their RPO requirements regardless of their contract demand.
- b) In case projects setup for third party sale, open access charges shall be applicable similar to normal open access consumers as determined by HERC from time to time.
- c) Transmission losses as determined by HERC shall be levied as applicable depending on the location of the plant and the point of consumption.

## **CHAPTER-II (GROUND MOUNTED POWER PROJECTS)**

### **2.1 Ground mounted megawatt scale power plants:**

#### **a. Ground mounted MW Scale Solar Power Projects for Sale of Power to Discoms:**

Solar power projects with or without storage and / or blended with other RE sources shall be set up by the independent power producers (IPP) for sale of power to DISCOMs for which Haryana Power Purchase Centre (HPPC) or any such agency nominated by State Govt. shall invite bids through competitive bidding tenders. Each bid shall be comprised of the power required to be purchased for fulfilling the RPO, for larger capacity projects of above 2MW. The entire power produced by power producers from the tendered capacity shall be purchased by the HPPC or any other entity of Haryana Govt. The Independent Power producers shall meet with all the requirements, as per the State Grid Code, for setting up their projects. However, the Power evacuation facility to them shall be provided as per clause no. 4.1 of the policy.

For connectivity with grid, the IPPs shall connect the Solar Power Plant with the nearest Sub-Station of Transmission/Distribution Licensee and inject the electricity at appropriate voltage of the Sub-Station.

**Projects for sale of power to the Discoms below 2 MW:** Discoms may procure power from distributed solar projects upto 2 MW capacity, located in Haryana, at pre-fixed levelized tariff as determined by HERC, subject to spare capacity available on the nearest substation. 20% of the targeted solar power as per RPO to be purchased by Discoms, shall be reserved for such small generators below 2 MW capacity.

Each Individual/Farmer/ Registered Society/ MSME of the State, holding ownership of land, shall be allowed to sell Power from only one such project with max. 2 MW capacity to the Discoms.

#### **b. Ground Mounted MW Scale Solar Power Projects for Captive/ Third Party sale**

Solar power projects within the State shall be set up by the independent power producers (IPP) at their own cost for their captive consumption (within the same premises/remote premises within the State) or for sale to third party on payment

of applicable charges as per HERC Regulations/ Electricity Act 2003 (with amendments thereof)/ Electricity Rules 2005/ Electricity Rules 2020 (with amendments thereof).

The State shall also provide transmission & banking facility for setting up of solar power projects for captive consumption or third party sale within the State of Haryana. For third party sale outside of the State the transmission facility shall be provided under open access by the State Power Utilities while banking facility may be provided by the State in which power is being consumed as per their policies/regulations.

Any industrial/commercial unit in the State shall be allowed to consume 90% of its annual consumption from Solar Power Project.

## **2.2 Development of Solar Parks**

To boost the economy, Solar Parks will be set up in the State as per Guidelines of MNRE, GoI or State Govt. issued from time to time.

In the solar parks, the Solar Power Park Developer (SPPD) has to provide plug and play facility/ all infrastructure as per MNRE/ State Govt. guidelines to the solar power projects to be established in the solar park. The SPPD should not have any equity share holding in any of the solar power project to be established in the park.

## **2.3 Solar Power Projects set up on Canal tops/banks:**

The setting up of Solar Power Projects on canal top/ canal banks/ water works/ reservoir shall be encouraged and explored as per the guidelines and incentives issued by MNRE, Government of India or by the State Govt., from time to time. For setting up of such projects, sites for shadow free space available on canal top/ canal banks/ water works/ reservoir shall be identified in consultation with concerned Govt. Department. The bidder shall be selected through open competitive bidding by a separate tender by DNRE/ HPPC or by any Govt. Department/ Agency nominated by the State Government. The entire power from such Solar Power Plants shall be purchased by HPPC, if need be, to meet their RPO, at the tariff so discovered. They shall be provided with all the benefits as provided for Ground Mounted Megawatt scale Power Projects including free evacuation facility irrespective of the distance from the Grid. Further the Independent Power Producers, who have already set up small hydro projects on the canals, shall also be motivated to set up solar power projects on the canal top/ canal banks/ water works/ reservoir allocated to them.

## **2.4 Panchayat Land on Lease /Rent basis.**

The Government of Haryana may facilitate the lease / sub-lease of Panchayat land at reasonable rates through any Government agency or directly through Panchayat (as per prevailing Govt. Policy) for setting up of Solar Power Projects by Govt. / Govt. entity, for minimum period of 30 years.



## **2.5 Land Ceiling Act for setting up of ground mounted Solar Power Projects**

The area of land wherein Solar power projects are setup or planned to be setup will be out of the preview of the Land Ceiling Act of the government.

## **2.6: A.C. Capacity w.r.t. D.C. Capacity of Solar PV Power Plants**

As the capacity in case of Ground Mounted Solar Power Project is considered in terms of MW AC capacity, the MW DC capacity shall be allowed as per guidelines/instructions issued by MNRE, GoI from time to time. The consumer shall be allowed to install Captive Solar Power Project of maximum capacity in terms of AC which may cater his 90% annual consumption from the captive solar power project.

## **2.7 Preference to ground mounted Solar Power Project with storage**

- 2.7.1 Solar power is intermittent in nature as it is available only in day time and it also depends on prevailing weather conditions. Therefore, to reduce the variability of output of solar power injected into the grid and to ensure availability of firm power for a particular period, the State will promote Solar Power Projects with storage systems in form of battery storage, pumped hydro storage or any other grid interactive storage system.
- 2.7.2 Installation of ground mounted Solar Power Project with storage will be promoted and will be given preference in granting the approval w.r.t. without storage. The preference shall also be given in the tariff, if purchased by the HPPC.
- 2.7.3 The State will also promote Solar Power Projects with Storage Systems for captive use/third party sale.

## **2.8 Single window clearance for ground mounted Solar Power Projects:**

For Ground Mounted Solar Power Projects, wherever required under this policy, all the statutory clearances and approvals shall be provided to the IPP through a single window facility, in a time bound manner within a period of 60 days after the submission of complete application along with necessary enclosures, fees/charges including LOI. The concerned department will give the clearance to the single window authorities within 45 days.

Haryana Vidyut Parsaran Nigam Ltd (HVPNL) along with the concerned Departments shall function as single window authority on behalf of Govt. of Haryana. The Managing Director, HVPNL shall be the authority for the single window service. Director, New & Renewable Energy Department/HAREDA and Managing Director, UHBVN or their representatives shall be the members of the committee for single window service. The Administrative Secretary to Govt. Haryana, Power Department, Haryana will be the Appellate Authority.

## **CHAPTER-III (ROOFTOP POWER PROJECTS)**

### **3.1 Rooftop Grid connected solar power projects.**

There is a great potential to generate solar power through installation of rooftop solar power plants in the State. Accordingly, the installation of 1kWp to 2 MWp of capacity Grid Connected Roof-top Solar Power Plants on the rooftops of Industries, Public and Private Institutes, Schools, Colleges, Commercial & Social Institutions/Establishments, Charitable Trust Bhawans, Hospitals and Residential Buildings etc. shall be promoted for their captive use with or without net metering facility as per the HERC Regulations. The rooftop solar power plants may be installed either on CAPEX mode or on RESCO mode.

Following interpretation shall be considered for the rooftops solar power plants:

- (i) The Solar Power Plants installed on Pucca structure or Pucca walls or having a electricity connection or installed on any structure/ground within the building/complex premises shall be counted as rooftop solar power plant.
- (ii) However, the solar power plant installed on the shelter, cantilever, periphery sheds, on any part of the building/structure as mentioned above shall also be counted as rooftop solar power plant.
- (iii) The Solar Power Plants installed on the agricultural land may not be counted as the rooftop solar power plant. However, the solar power plant installed on the roof of the building constructed on the agricultural land may be counted as rooftop solar power plant, besides counting rooftop as per Sr. No. (i) & (ii) also.

For installation of rooftop solar power plants the State Government shall provide capital /generation subsidy/ incentives.

A capacity of 1600 MW rooftop solar power plants shall be added more by the year 2024-25.

### **3.2 Cluster of rooftops of public / private buildings**

Some percentage capacity (to be fixed from time to time)-of the setting up of ground mounted mega watt scale grid connected power plants, to meet the solar RPO shall be developed by setting up of grid connected rooftop solar power plants. For that the offers shall be invited by New & Renewable Energy Department, Haryana/HAREDA from the independent power producers for development of grid connected rooftop solar power plants, of capacity ranging from 250 kWp to 2 MW, on a cluster of public private buildings on the last lowest tariff discovered and conveyed by HPPC. The entire power produced by power producers who set up plants within four years from the date of notification of this policy shall be purchased by the HPPC or any entity of Haryana Govt. Alternatively, the developer can also supply/provide the power for the captive use of the premises where the system is installed along with net meter and can sell the remaining power to HPPC or any entity of Haryana Govt.

on the last lowest tariff discovered and conveyed by HPPC or to third party as per HERC regulations.

All maximum and extra benefits possible will be extended to Roof Top Solar Power Producers.

No permission is required from the building plan sanctioning authority for setting up of rooftop solar power plants. These Rooftop Solar Power Plants shall also be eligible for RPO/REC benefits.

### **3.3 Power Evacuation**

For Rooftop grid connected solar system, installed for captive use or sale of power to power utilities/third party sale through open access, all arrangements for power evacuation i.e. voltage step up, synchronizing equipments, metering shall be done by the user as per the technical specifications, guidelines and regulation issued by HERC. However, if dedicated transmission line is required then it shall be as per procedure of ground mounted power plants.

### **3.4 Rooftop solar power projects**

3.4.1 The programme for rooftop solar power projects (MW scale as well as small projects) in Government Sector shall be implemented by Renewable Energy Department. Installation of rooftop solar power plant under subsidy programme in domestic/residential sector shall be implemented by New & Renewable Energy Department or as decided by State Government from time to time. The net metering shall be provided by DISCOMs to all the grid connected rooftop solar power plant. For the general programme, without any subsidy, the rooftop solar power plant may be installed from any company/supplier in the residential/industrial/commercial sector.

3.4.2 In case of rooftop solar power plant installed on Cluster of rooftops of public / private buildings, once the proposal has been approved (LOI issued), the IPPs/project developer(s) will be required to enter into PPA with HPPC for the sale of power to it.

3.4.3 In case of any dispute either party can approach Secretary, Renewable Energy Department or any body appointed by him for a decision in the matter.

3.4.4 Wherever required under this policy, all the statutory clearances and approvals shall be provided to the IPP through a single window facility, in a time bound manner within a period of 60 days after the submission of complete application along with necessary enclosures, fees/charges including LOI. The concerned department will give the clearance to the single window authorities within 45 days.

For that, the Renewable Energy Department/ HAREDA along with the concerned Departments shall function as single window authority on behalf of Govt. of Haryana. The Director, Renewable Energy Department/HAREDA shall be the authority for the single window service while Secretary to Govt.

Haryana, Renewable Energy Department, Haryana will be the Appellate Authority.

The Renewable Energy Department/HAREDA will provide all requisite help to selected eligible project developer for getting the loan sanctioned from the banks as per the guidelines of Reserve Bank of India and the Government of India.

### **3.5 Application fee**

For Roof top grid connected solar power plant installed for captive use, under net-metering regulations, there shall be no processing fee.

### **3.6 Decentralized and Off Grid Solar Applications**

The State will promote the installation of decentralized and off-grid solar applications, including hybrid or systems without having export facility to the grid as per guidelines issued by MNRE, Government of India/ State Government Guidelines, to meet various electrical and thermal energy requirements for domestic and commercial use by providing financial assistance.

For that the State will promote setting up of local solar grid and stand-alone systems like solar inverter, solar home lighting systems, solar street lighting systems etc. to meet the lighting energy needs of villages/dhanis.

For meeting the hot water requirement in the residential, industrial, commercial and social sector the installation of solar water heating system shall be promoted.

To meet the Community cooking energy needs in residential institutions/industrial mess/Hotels/Barracks/ mid day meal program/Hospitals etc., Industrial Application of steam in process industries such as Textile/Food industry etc. ,Laundries & Process steam requirements in industries etc. the Department/ HAREDA shall promote the use of solar steam systems.

### **3.7: Settlement period for energy accounting of electricity generated from a rooftop solar system.**

Energy accounting of electricity generated from a rooftop solar system, the settlement period shall be from first of 1<sup>st</sup> October in a calendar year and ending with the 30<sup>th</sup> of the September of the next year. The excess energy generation shall be allowed to carry forwarded from one billing cycle to the next billing cycle up to the end of settlement period. Also, the excess energy exported during the last quarter of the settlement period shall be carry forwarded to be utilised during the first quarter of the next settlement period and if still there is excess energy exported to the grid after the settlement period or first quarter of next settlement period, it shall be lapsed without any benefit to the consumer.

### **3.8 Installation of Solar Generation Meters and Bi-Directional Meters**

With the Grid Connected Solar Power Plant (without Battery Bank), both Solar Generation Meter and Bi-Directional Meter are required to be installed. The Solar Generation Meter is to be installed near the distribution board of the consumer while the Bi-Directional Meter is to be installed outside the campus of the consumer. However, if new connection is applied by any one who want to install the GCRT Solar Power Plant, then the new connection shall be released with installation of Bi-Directional Meter to that consumer.

With the Grid Connected Hybrid Solar Power Plant (with Battery Bank), only Bi-Directional Meter is required to be installed, while solar generation shall be counted as per reading of the Power Conditioning Unit installed with the plant.

### **3.9 Virtual Net Metering (VNM):**

To promote and facilitate the eligible consumers, especially located in the urban centres of Haryana and having constraints like access to adequate rooftop area/inaccessible rooftops, etc. one specific metering arrangement, Virtual Net Metering (VNM), including Group Virtual Net Metering which may be promoted.

#### **3.9.1 Virtual Net Metering (VNM):**

Virtual Net Metering (VNM) is a metering arrangement by which a distribution licensee allows utilization of credit of solar energy generated by a rooftop solar system at one point (premises), at another point (premises) within its area of supply. The VNM is a bill crediting system for consumers who intend to set up a rooftop solar system but have inadequate rooftop space to deploy these systems. This enables setting up a rooftop solar system externally and the net metering benefits (energy credits) are shared amongst the participating consumers. In this case, the consumer receives credit on their electricity bill for any excess energy produced by the rooftop solar system installed at another location.

#### **3.9.2 Group Virtual Net Metering (G-VNM):**

Group Virtual Net Metering (G-VNM) may be allowed. Under this arrangement, all the participating premises located within the supply area of the same distribution licensee and have electricity connections in the name of same person/ entity. The person/entity participating under this arrangement may set up rooftop solar system(s) and get the benefits of net metering arrangement simultaneously at its multiple premises/connections within the supply area of the same distribution licensee. For the purpose of G-VNM, the premise where rooftop solar system is set up shall be referred to as a G-VNM generator, and all the other participating premises shall be referred to as a G-VNM consumers.

#### **3.9.3 Community Virtual Net Metering (C-VNM):**

This net metering arrangement may be applicable only to the residential consumer category and government departments. Only those consumers may be eligible that have either inadequate rooftop size or non-availability of rooftop space for installing rooftop solar systems, such as residential consumers staying in apartments, high rise building, Municipalities etc. For this the consumer may set up solar power plant at its own/leased premises (rooftop or ground) and use the solar power for meeting out own energy needs at another point.

### **3.9.4 Bulk Supply VNM (BS-VNM):**

To facilitate rooftop solar net metering facility for consumers may be allowed where the sanctioned load and rooftop area is shared between multiple consumers under bulk supply tariff regime through a single connection, such as bulk supply (single point supply, multiple consumers and multiple owners) group housing societies.

## **CHAPTER-IV (PERQUISITES)**

The following incentives/benefits shall be provided to the Solar Power Projects on 'Must Run Status and Operational Projects:

### **4.1 Power Evacuation Facility**

All expenses for power evacuation, transmission, distribution line and synchronizing equipment required for installation will be as per the orders of the Haryana Electricity Regulatory Commission for Electricity on Renewable energy Tariff & other issues, as modified from time to time.

Transmission/Distribution Licensee shall bear the cost of Extra High Voltage (EHV)/ High Voltage (HV) transmission line up to a distance of 10 km and in case the distance between the inter connection point and point of grid connectivity is more than 10 KMs then the cost of transmission line for the distance beyond the 10 KMs shall be borne equally between the Independent Power Producer and the licensee, only in the case where the power is to be supplied to DISCOMs under approved PPA. Solar Power installed by Independent Power Producers (IPP) for merchant sale or captive consumption, should bear the cost themselves. However for canal based solar power projects, the transmission lines shall be provided by the utilities, free of cost, irrespective of the distance of the project from the substation.

The cost of any augmentation required after the interconnection point in the grid system of the Transmission/Distribution Licensee shall also be borne by the concerned Transmission/Distribution Licensee.

The terms & conditions for cost of evacuation of power in respect of PPA entered into by DISCOMs/HPPC with Solar Power Producers under competitive bidding, shall be governed by the terms of such PPA.

**4.2** Power utilities will keep on upgrading the capacity of transformer/evacuation facility including the substation from time to time as per the generation requirement.

**4.3 Exemption of Wheeling, Transmission, Cross Subsidy Charge and Additional Surcharges:**

Wheeling and Transmission Charges will be exempted for life of the projects from the date of commissioning only for all Captive Solar Power Projects which have already been approved, in March 2019, by HAREDA for these waivers.

Wheeling and transmission of power for captive consumption / third party sale shall be allowed on payment of transmission charges, transmission losses, wheeling charges and wheeling losses, as applicable to normal open access consumers. These charges shall be as determined by HERC from time to time. However, if the generated solar energy is consumed within the same premises without use of grid, no transmission / wheeling charges and losses shall be applicable.

The cross subsidy surcharges and additional surcharges are not applicable for Captive Solar Power Projects as per provisions of Electricity Act 2003.

In case projects setup for third party sale, cross subsidy surcharge and additional surcharge shall be applicable similar to normal open access consumers as determined by HERC from time to time.

**4.4 Status of Industry**

All new projects of MW scale generating solar energy will be treated as “Industry” in terms of Industrial Policy of the State. Thus all the incentives available to industrial units under the industrial policy from time to time, shall also be available to the solar power producers/units.

**4.5 Price Preference**

Price preference will be given to IPPs who set up the Solar Power Plants in the State.

**4.6 Banking**

Haryana Vidyut Parsaran Nigam Ltd. (HVPNL)/ Dakshin Haryana BijliVitrان Nigam Ltd. (DHBVN)/ Uttar Haryana BijliVitrان Nigam Ltd. (UHBVN)/ licensee shall permit solar power generated by eligible producers to be banked on payment of banking charges. The banking charges shall be applicable as per HERC Regulations issued from time to time.

The banking facility shall be allowed for captive/ third party solar generation projects for a period of six months from the date of power banked by the Licensee/ Utilities and IPP will pay the difference of Unscheduled Interchange charges (UI charges) at the time of injection and at the time of withdrawal.

However, withdrawal of banked power should not be allowed during peak and Time of Day (TOD) hours. If the banked energy is not utilized within a period of six months from the date of power banked with the concerned power utilities/ licensee, it will automatically lapse and no charges shall be paid in lieu of such power.

The banking facility shall be allowed for the grid connected rooftop solar power projects to be installed for generation of power for captive/ third party sale on the same pattern as per Ground Mounted Solar Power Projects.

#### **4.7 Renewable Energy Certificate/ Solar Renewable Purchase Obligation**

- 4.7.1** A generating company engaged in generation of electricity from Solar Power Plant shall be eligible to avail the Renewable Energy Certificates as per regulations of the Central Electricity Regulatory Commission.
- 4.7.2** If the Solar Power project availed the exemption of transmission and wheeling charges then the Solar Renewable Purchase Obligation shall be counted towards Solar RPO of DISCOMs. However, if the consumer of solar power from these plants is an obligated entity then the Solar RPO shall be counted towards its obligation to the extent of its obligation and excess solar power shall be counted towards the Solar RPO of DISCOMs.

#### **4.8 Exemption from Land use approval, External Development Charges, scrutiny fee and infrastructure development charges.**

These projects of MW scale shall not require any change of Land Use approval from Town & Country Planning Department. The project shall also be exempted from External Development Charges (EDC), scrutiny fee and infrastructure development charges but if special service is required for the solar project then EDC charges shall be charged on pro-rata basis. The details of such projects will be intimated to the Town & Country Planning Department.

However, after the expiry of purchase power agreement period or when plant ceases to operate on the land, land use will revert to the original (time of installation of plant) master plan of the area/city/town ( i.e. it will convert to the original status of land).

#### **4.9 Exemption of Environment Clearance**

These projects shall not require any clearance from the Haryana Pollution Control Board.

#### **4.10 Exemption of the Clearance from Forest Department**

Wherever not expressly prohibited and wherever possible, if clearance from Forest Department, Haryana under their Act/Notification is required the same will be facilitated by single window authority clearance agency of the Renewable Energy Department.



#### **4.11 Exemption in Stamp Duty for lease of land for projects**

There shall be 100% exemption of stamp duty on Lease deed of land or purchase of land and any further sub-lease(s) for the land required for establishment of Solar Project within the state. However, if the independent power producer /project developer does not implement the projects or abandons the project prior to its life span (i.e. 25 years w.e.f. date of commissioning) except under force majeure conditions, then it will have to pay the exempted stamp duty failing which land purchase deed shall be cancelled.

The stamp duty exemption shall also be provided for setting up of manufacturing units for RE equipments/devices in the same manner as in solar power projects.

#### **4.12 Use of unutilized space**

The developers setting up the ground mounted MW scale solar power plants may also use the space in between the installed solar panels for commercial floriculture/horticulture related activities provided that it does not affect solar power generation and also keeping in view all the safety and security measures as required for the installed equipments as per the provisions of Electricity Act 2003.

#### **4.13 Metering**

Metering equipments for the power generation & its sale will be installed at site by the user at their own cost as per specification of Power Utilities of State/ HERC Grid Code/ Central Electricity Authority (Installation and Operation of meters) Regulations, 2006 and its amendments thereof.

The testing of these equipments will be carried out by Power utilities, at the user's cost. Power utilities will develop necessary infrastructure at locations where more than one project is installed.

The Metering equipments & the allied equipments be installed in the following manner:-

- a) Main meter at the interconnection point shall be provided by the IPP.
- b) Check meter at the interconnection point shall be provided by the Nigam/DISCOM.
- c) Main Meter at the substation of the Nigam/DISCOM shall be provided by the Nigam/DISCOM.
- d) Check meter at the substation of the Nigam shall be provided by the company.

Metering of the power produced shall be done at substation of the Nigam/DISCOM.

For Grid Connected Rooftop Solar Power Plants the metering arrangement shall be as per clause no. 3.8.

#### **4.14 Tenure of Power Purchase Agreement**

The Power Purchase Agreement (PPA) to be signed between IPP and HPPC shall be valid for a period of 25 years. After this period, the PPA can be renegotiated between the power producer and concerned power utilities/licensee. In such case, the developer shall abide by the policy existing at that time.

#### **4.15 Earnest Money Deposit**

For grid connected solar power projects, installed for sale of power to HPPC, the Earnest Money Deposit (EMD) shall be deposited by the developers as per existing provision of HPPC while for other projects, the EMD shall be as per provisions of HVPNL.

#### **4.16 Minimum Equity to be held by the Promoter**

The project developer may be individual/company/firm/group of companies or a Joint venture/Consortium of more than one company/firm who shall comply the provision of the Electricity Act 2003 with amendments from time to time.

For financial closure, debt: equity ratio shall be 70:30 of the project cost.

#### **4.17 Setting up of manufacturing unit of devices/ equipments**

For setting up of manufacturing unit of devices/ equipments related to solar power, 10% tax exemption on total applicable tax shall be provided by the Industry & Commerce Department, Haryana for a limited period. Land/Plot for setting up of such type of units shall be allotted on priority basis.

#### **4.18 Solar Manufacturing Hub**

HSIIDC shall reserve a space for developing the Solar Energy Manufacturing equipments (Solar Modules, Solar Inverters, Solar batteries, Solar Pumps, Solar based appliances) Hub in the State in Industrial areas of the State.

#### **4.19 Inter State Transmission of solar power**

Inter State Transmission of solar power produced or consumed by the industrial/commercial establishment/ IPP shall be allowed as per National Tariff Policy of Government of India.

#### **4.20 Technology for cleaning the solar modules**

If the Solar Power Producer uses the robotic method for cleaning the solar modules and uses low water technology, some incentives/subsidy shall be provided by the Government. The incentives/subsidy shall be decided based on the technology used and to be decided on case to case basis.

#### **4.21. Exemptions of open access charges under Government Producer Scheme:**

The State Transmission Utilities (STU) Charges (Open Access Charges/ Wheeling and Transmission Charges) for solar power to be supplied under “Government Producer Scheme” for projects set up through competitive bidding shall be waived off totally. Any State Government entity can install the solar project for its captive consumption or for sale of solar power to any other Government Entities within or outside the State under this scheme.

#### **4.22 Grant of incentives available to Industries:**

Generation of electricity from Solar Power Plant shall be treated as eligible industry under the schemes administered by the State's Industry Policy

### **CHAPTER-V (INITIATIVES)**

To promote rooftop solar power projects, the State Government has taken the following initiatives:

#### **5.1 Mandatory installation of solar power plants**

The notifications issued by the State Government/central Government for mandatory installation of Solar Power Plants from time to time shall be implemented in the State.

#### **5.2 Net Metering Facility**

The Net Metering Regulations issued by Haryana Electricity Regulatory Commission (HERC) from time to time shall be implemented in the State.

#### **5.3 Lease of Government buildings/Land**

The rooftop space available in the Government organization, institutions, buildings or vacant land of the same can also be provided on lease/rent to the Independent Power Producer/ RESCO developer for setting up of solar power projects.

For such sites the lease/rent rate shall be decided by a Committee of Deputy Commissioner of concerned district, PWD (B&R) Department and the Department owning the building. The developer can also supply/provide the power for the captive use of the premises where the system is installed along with net meter and can sell the remaining power to HPPC on the minimum last tariff discovered and conveyed by HPPC or to third party as per the HERC Regulations.

#### **5.4 Agriculture Solar Pump sets**

The State in collaboration with the Central Government / MNRE, Govt. of India will promote the installation of Agricultural Solar Powered Pump sets through subsidy support (if applicable) to meet water/ irrigation energy needs. The surplus power generation from the solar pump sets may be bought by the HPPC at APPC rate of the year. The solar energy thus generated and exported shall also be credited towards meeting the RPO of the DISCOM.

#### **5.5 Solarisation of agricultural feeders**

Large scale solarisation of agricultural feeders for agricultural pump sets shall be promoted for the purpose of reducing the burden of RE subsidy on the State.

The power to the pumps/farmers on the solarised feeders shall be provided free of cost. For the surplus power, DISCOMs have to pay the pre fixed tariff on APPC rate or as approved by HERC to the implementing Agency.

The total power produced shall be counted towards the Solar RPO of the DISCOMs.

#### **5.6 Participation of farmers in solar energy sector**

On the pattern of PM KUSUM Component-A, State aims to increase participation of farmers in solar energy sector to augment their sources of income by production and sale of solar energy to DISCOMs. The setting up of solar power projects under PM KUSUM scheme shall be promoted on all the sub stations of rating 11KV/33KV/66KV. The solar power from such projects shall be purchased by Haryana Power Purchase Center/Power Utilities. For this purpose, Power Utilities shall invite bids for purchasing the solar power at pre fixed tariff or as per HERC Regulations. The total power produced shall be counted towards the Solar RPO of the DISCOMs.

#### **5.7 New Scheme for small & marginal farmers**

The State Government may launch any new scheme for installation of Solar Power Projects of capacity upto 500 kWp to increase the income of the small & marginal farmers. The Solar Power shall be purchased by HPPC from such projects on a pre-determined tariff or the power may be sold by the farmer to any industry/commercial establishment. The Power Utilities shall provide the connectivity to such projects on priority.

#### **5.8 Solar PV Pumps**

The State will promote installation of Solar PV Pumps for pressure irrigation systems like drip irrigation, sprinkler, micro irrigation etc.

#### **5.9 Solar Energy based Electric Vehicles (EV) Charging Stations**

The shift to clean and green transport has become a necessity due to increase in carbon emission from fossil fuel which leads to global warming and climate change. The rapid increase in fossil fuel consumption due to rising vehicular

movement has led to increase in pollution and an adverse impact on environment.

Charging of EVs from electricity generated from fossil fuel based conventional sources does not reduce emissions. For further reduction of carbon footprint it is essential that the EVs are charged from renewable energy sources. In view of the above, the State shall promote the use of Solar energy for charging of EVs in the following manner:

- i. The Charging Infrastructure will be developed as per the guidelines and standards issued by Ministry of Power and Central Electricity Authority.
- ii. The EV charging stations may be established by the State/Central Public Sector Undertakings, private operators or under public private partnership models.
- iii. The charging station service providers may set up solar energy generation plants within their premises for captive use and may also draw solar power through open access from generation plants located within the State. Virtual Net Metering (VNM), including Group Virtual Net Metering shall be allowed for solar power plants established for the purpose of EV Charging Stations established at Municipal Corporation Parking's/ Bus Stands/ Govt. Offices or at Public Places or for EV charging stations.
- iv. For Combo Charger C-122 (CCS+CHAdMO+AC-002) (122kW), contract demand of 122 KW is required. In the Combo Charger, there are three charges 2 of 50 KW each and one of 22 KW. So for the E-Vehicle Charging Station LT Connection (upto 150 kW) may be provided instead of HT connection so as to reduce the cost of installation.
- v. Also for a series of Charging Stations set up in the same campus/nearby areas (approachable with single connection) shall be allowed to set up with single HT connection so that separate transformer is not required for each such charging station.
- vi. NRE Department being the State Nodal Agency shall also encourage other energy companies (like IOCL, HPCL, IGL, EESL etc.) to invest in providing a charging network, specially the fast charging stations at inter-city routes like state and national highways and in cities.

New & Renewable Energy Department shall implement the scheme in reference to MNRE guidelines and invite the bids. The Grid Connection to the Electric Vehicles Charging Stations shall be provided by the DISCOMs. The total power produced shall be counted towards the Solar RPO of the DISCOMs. The Discoms / HPPC shall get a separate tariff category approval from HERC, for drawl of additional Power from the grid by such charging stations, apart from generated solar power. Per unit charges to be levied on EV consumers/ owners for charging of EVs shall not be more than Rs 5/Unit in addition to per unit charges of Discoms.

## **5.10 Solar Cities**

State shall promote the concept of Solar City and Solar Villages. In Solar City and Solar Villages 20% of the energy requirement shall be met out from solar energy. The State Government shall promote the use of solar energy in solar cities/solar villages. Solar Cities may be recommended/ notified by the State Government from time to time.

## **5.11 Disposal of parts of the Solar Power Project after its life cycle**

**5.11.1** The useful life cycle of the solar modules is about 25 years but not limited to this extent as after 25 years the solar modules will give solar power minimum 80% of the rated capacity. Same is the case with the life of inverter and other electronic/electrical part used in the system. However, after the use of the system, the disposal of solar modules, inverter and other electronic/electrical part shall be done as per as per E-Waste (Management) Rules, 2016 of Ministry of Environment, Forest and Climate Change, GOI issued vide Notification No. G.S.R 338(E) dated 23rd March, 2016 with amendment thereof.

**5.11.2** The battery part (if used in the project) have limited life of 5 to 8 years and shall be disposed off as per Batteries (Management and Handling) Rules, 2001 issued by Ministry of Environment and Forests vide Notification No. S.O. 432 (E) dated 16<sup>th</sup> May, 2001.

## **5.12 Availability of Water**

Water Resources Department will allocate required quantity of water from canal/the nearest available source, if required, for cleaning of solar panels and auxiliary consumption for Solar PV Power Plants subject to the availability of water and feasibility thereof. Power Producer will intimate estimated water requirement to Irrigation Department. However, the developers may preferably adopt the dry cleaning/ water saving technology for cleaning the modules.

## **5.13 Forecast and Scheduling**

All Solar Power Projects shall forecast and schedule their generation as per Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, HERC Regulations, State Electricity Grid Code etc. as amended from time to time.

## **5.14 Must Run Status**

SLDC will ensure 'Must Run' Status of Solar Plants in the State in accordance with applicable HERC Regulations and maintain the data of Solar Power curtailment in transparent manner.

### **5.15 Solar Thermal Power Project**

All the benefits as available for Solar PV Power Projects under this Policy shall also be applicable to the Solar Thermal Power Projects installed within the State.

### **5.16 Research and Development (R&D), Innovation and Outreach activities**

- a) The State will facilitate and promote Research and Development (R&D) in solar energy Sector including Solar Power Projects with Storage.
- b) Recognising rapid development and improvement in efficiency of PV cell and thermal technologies, R&D in the sector shall be the top priority area.
- c) The New and Renewable Energy Department, Haryana / HAREDA shall collaborate with multi-lateral Agencies at local/ National/ International levels for advancing solar energy research and development in the State.
- d) The State Government will promote studies in Solar Energy sector for further Policy Interventions in estimating the impact of promoting solar rooftop capacity addition on the grid and the state power utilities, analysing and identifying suitable technologies and implementation models for ancillary services. The State will also promote technology for improving the cost competitiveness of solar manufacturing plants.
- e) Advanced technology based Solar Projects shall be installed for study / research/ pilot purposes and may be given special priorities / exemptions by the New and Renewable Energy Department, Haryana / HAREDA.
- f) Demonstration projects on Emergency Rescue Device for Lifts for providing atleast 15 min battery bank (using latest/ advanced storage technologies) may be installed in-order to reduce the dependency on usage of Diesel Generators. Probable application / usage of solar energy shall also be explored and shall be implemented in phased manner on success of such Demonstration / pilot projects.
- g) The State Government will also organise outreach programmes, trainings and workshops for capacity building of human resource.
- h) The State Government will also promote through awards any innovation in the field of solar energy.

## **CHAPTER-VI (GENERAL)**

### **6.1 Technical Requirements**

The Independent Power Producers and the users producing power from Grid tied /Grid connected solar power plants as well as users of off-grid solar devices would be required to strictly adhere to the national/international standards/specifications specified by the Ministry of New & Renewable Energy, Govt. of India or as amended from time to time and relevant IEC/ BIS standards and / or applicable standards as specified by the Central Electricity Authority/ Bureau of Energy Efficiency, as the case may be.

The independent power producers have also to comply with the HERC Renewable Energy Regulations, 2010, as amended from time to time.

## **6.2 Other schemes of MNRE, Govt. of India**

Various programmes/schemes of the Ministry of New & Renewable Energy, Govt. of India, related to Solar Energy, issued from time to time shall be implemented/promoted in the State.

## **6.3 Nodal Agency**

The New & Renewable Energy Department, Haryana shall be the nodal agency for the facilitation and implementation of the Haryana Solar Power Policy-2021 on behalf of the Govt. of Haryana.

All project developers shall be required to submit monthly reports with regard to parameter like energy generated, revenue earned and plant load factor achieved, reasons for non-achievement of full generation and any other information so called for by New & Renewable Energy Department/HAREDA so as to maintain and update data bank on solar power generation in the state and also for the purpose of monitoring of generation under RPO regulations.

The Nodal Agency will facilitate and assist the project developers to undertake the following activities in achieving the objectives of the policy:

- Registration of Projects
- Respond to queries and problems of Developers of Solar Power Projects
- Accreditation and recommending Solar Power Projects for registration with Central Agency under REC mechanism.
- Certifying the commissioning of Solar Projects

## **6.4 Amendments/ Relaxation/ Interpretation of provisions of the Policy**

The Administrative Secretary to Govt. of Haryana, New & Renewable Energy Department shall have the powers to issue clarification, if any, on any matter related to interpretation of any provisions under the policy.

The Council of Minister shall have the powers to amend /relax any provisions under the policy.

## **6.5 Applicability of the Solar Policy**

If any clause of this policy contradicts/ not in consistence with any Act passed by the Parliament/Vidhan Sabha of the State, then Act passed by the Parliament/Vidhan Sabha of the State, as the case may be, shall be considered applicable.



## CHAPTER-VII (GLOSSARY)

**7.1** Following expressions used in the Policy would have meanings assigned to them as defined hereunder:-

- i. "Act" means Electricity Act 2003, including amendments there to.
- ii. "APPC" means Average Power Purchase Cost.
- iii. "Canal" means feeder, canal, rajbahas, minors, drains, channels and Minor Irrigation Tubewells, Corporation (MITC) Nalas
- iv. "CEA" means Central Electricity Authority.
- v. "CERC" means the Central Electricity Regulatory Commission of India, constituted under sub-section (1) of Section 76 of the Electricity Act, 2003, or its successors.
- vi. "Central Agency" means National Load Dispatch Centre (NLDC) as designated by the Central Electricity Regulatory Commission vide order dated 29.01.2010 for the purposes of the REC Regulations.
- vii. "Captive generating plant" or "Captive Power Plant" means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by any co-operative society or association of persons for generating electricity primarily for use of members of such cooperative society or association
- viii. "DISCOM of Haryana" means a distribution licensee, such as UHBVNL, Panchkula, DHBVNL, and Hisar.
- ix. "FDPR" means Feasible Detailed Project Report.
- x. "Government" and "State" means the Government of Haryana and the State of Haryana respectively.
- xi. "IREDA" means Indian Renewable Energy Development Agency.
- xii. "Licensee" includes a person deemed to be a licensee under Section 14 of the Act.
- Xiii. "MNRE" means Ministry of New and Renewable Energy, a Central Government Ministry responsible to develop and deploy new and renewable energy for supplementary energy requirement of the country.
- xiv. "MOU" means Memorandum of Understanding.
- xv. "National Solar Mission or Solar Mission" means Jawaharlal Nehru National Solar Mission 2009 launched by Government of India.
- xvi. "NTPC" means National Thermal Power Corporation.
- xvii. "NVVNL" means National VidyutVyopar Nigam Ltd.
- xviii. "Nodal agency" means Haryana Renewable Energy Development Agency (HAREDA) or any other agency designated by Government of Haryana for promotion of electricity generation from renewable energy sources.
- xix. "PPA" means Power Purchase Agreement.
- xx. "REC Regulation" or "CERC REC Regulation" means Central Electricity Regulatory Commission (Terms & Condition for recognition and issuances of Renewable Energy Certificate for

- Renewable Energy Generation) Regulation, 2010 notified by CERC vide Notification dated 14.1.2010 and amended from time to time.
- xxi. "Renewable Energy Certificate" or "REC" means the Renewable Energy (Solar) Certificate issued by the Central Agency in accordance with the procedure prescribed by it and under the provision specified in the Central Electricity Regulatory Commission (Terms & Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) Regulation, 2010.
  - xxii. "HERC"/"Commission" means Haryana Electricity Regulatory Commission.
  - xxiii. "RPO" means Renewable Purchase Obligation.
  - xiv. "SECI" means Solar Energy Corporation of India.
  - xv. "Solar Power Producer" means an entity, which owns facilities to generate electric power for sale to DISCOM of Haryana/Licensees/NVVN /NTPC/ to third party/captive use.
  - xvi. "Solar Plant/Solar Power Plant" means a power plant or system utilizing solar energy through solar photo-voltaic or concentrated solar thermal devices including its integration into conventional fossil fuel for generating of electricity.
  - xvii. "Solar PV Power Plant" means the Solar Photo Voltaic (SPV) Power Plant that uses sunlight for direct conversion into electricity through Photo Voltaic technology.
  - xviii. "Tariff" means the schedule of charges for generation, transmission, wheeling and supply of electricity together with terms and conditions for application thereof.
  - xix. "TOD" means Time of Day in Hours.
  - xxx. "UI Charges" means unscheduled Interchange charges.
  - xxxi. "EHV" means Extra High Voltage.
  - xxxii. "HV" means High Voltage.
  - xxxiii. "MW" means Mega Watt Alternating Current (can also be denoted as "MW AC ").
  - xxxiv. "MWp" means Mega Watt Peak denoted for Direct Current Capacity of PV modules (can also be denoted as "MW DC ")
  - xxxv. "KWp" means Kilo Watt Peak.
  - xxxvi. "LOI" means Letter of Intent.
  - xxxvii. "HPPC" means Haryana Power Purchase Centre.

**7.2** All other words and expressions used herein and not defined shall have the meanings respectively assigned to them in The Electricity Act-2003.