GUIDELINES FOR INSTALLING SOLAR PHOTOVOLTAIC POWER PLANT

1. <u>Eligible Consumers</u>

All consumers of BSES Rajdhani Power Limited, BSES Yamuna Power Limited, Tata Power Delhi Distribution Limited, New Delhi Municipal Council & MES will be eligible for setting up of Solar Photovoltaic power plant on rooftop for sale of electricity to Discom or for self-consumption, in accordance with the Electricity Act-2003, as amended from time to time.

Person/ group of persons/ societies will also be eligible for setting up Solar Photovoltaic Power Plant for sale of electricity to Discom or captive use or for self-consumption.

2. <u>Grid-connected solar PV Systems</u>

There are basically two solar PV systems namely stand-alone and grid-connected.

i) <u>Stand-alone solar PV systems(off grid)</u>:

Stand-alone Solar PV System works with batteries. The solar energy is stored in the battery and used to feed building loads after conversion from DC to AC power with a stand-alone inverter. These systems are generally used in remote areas without grid supply or with unreliable grid supply. The disadvantage of these systems is that the batteries require replacement once in every 3 - 5 years.

ii) <u>Grid-connected solar PV systems</u> :

Grid-connected solar PV systems feed solar energy directly into the building loads without battery storage. Surplus energy, if any, is exported to Discom grid and shortfall, if any, is imported from the grid. These guidelines apply to grid-connected rooftop solar PV systems only.

3. <u>Solar Net-metering</u>

In Delhi a facility known as "net-metering" has been introduced. In netmetering the solar energy exported to the grid is deducted from the energy imported from the grid subject to certain conditions. The consumer pays for the net-energy imported from the grid. To enable net-metering, Discom will replace the existing service connection meter with a bidirectional meter that displays the import and export energy separately.

For details of net-metering please see the relevant order of the Delhi

Electricity Regulatory Commission (DERC) (No. F. 9(116)/DERC/Tariff/DS/2013-14/C.F 4110/). (<u>http://www.derc.gov.in/</u>)

4. <u>Requirements for installation of SPV Plant on rooftop:</u>

- A Minimum vacant roof area of 10 -12 Sq. mtr or 100-120 Sq. Ft is required for installation of 1 kWp SPV System.
- The Consumer shall have 3 Phase/ 1 Phase supply service connection.
- Mandatory safety precautions/ features shall have to be followed to install a SPV System as per the norms.
- A Single bi-directional meter shall be installed for export and import of energy.
- The standard equipments as per the norms of MNRE shall only be installed.

5. <u>System Components</u>

A grid-connected solar PV system consists of the following main components:

- i) Solar PV (photo-voltaic) array
- ii) Solar PV array support structure
- iii) Solar grid inverter
- iv) Protection devices
- v) Cables

6. <u>General Information:</u>

- a) Eligible Developers are allowed to avail the relevant subsidies and incentives from MNRE and from other Departments applicable from time to time.
- b) The eligible subsidy / incentive may be processed through Energy Efficiency & Renewable Energy Management Centre, Department of Power, GNCTD (Nodal agency). The sanction and release of the subsidy will be as per the guidelines issued by MNRE from time to time.
- c) No prior approval of Chief Electrical Inspector is required in case of an SPV power plant connected at LT level of distribution network up to 200 kW capacity.

7. Generation Based Incentive (GBI)

Applicants who are willing to install rooftop Solar Photovoltaic Power plant can avail Generation Based Incentive (GBI) from Delhi Government. The State shall offer a limited-time GBI for net metered connections in the domestic/residential segment only. This GBI will reduce payback time and increase adoption. A GBI of INR 2.00 per unit (kWh) of gross solar energy generated is proposed for 3 years, starting from the date of notification of Delhi Solar Policy-2016, i.e. 27.09.2016. GBI will be paid on a first-comefirst-served basis until the funds earmarked for GBI run out. The minimum eligibility criteria for GBI will be 1,100 solar energy units (kWh) generated per annum. For solar plants that generate less than 1,100 units (kWh) a year, the GBI facility will not apply. The annual solar energy generation that is eligible for GBI shall be capped at 1,500 kWh per kWp, irrespective of the readings of the solar generation meter.

8. <u>Is it good for me?</u>

- Yes, it brings down your electricity bill.
- You contribute immensely towards environmental protection.
- Surplus power is supplied to the Grid.
- Reduction in electricity bill as the bill is prepared after adjusting import and export of power.
- MNRE, GOI provides 30% subsidy on installation of Rooftop solar power plants in domestic sector and non- profit making institutions.
- Reduction in payback period after availing Generation Based Incentive (GBI).

9. <u>Application for sanction of Projects:</u>

A common procedure for sanction of projects and Empanelment of vendors is being prepared by MNRE and shall be notified later at our website.

10. Claim of Subsidy

Empanelment of vendors is in process. Information for claim of subsidy shall be shared as soon as empanelment of vendors is completed

For more details please contact – 011-23815874/ 23815875