

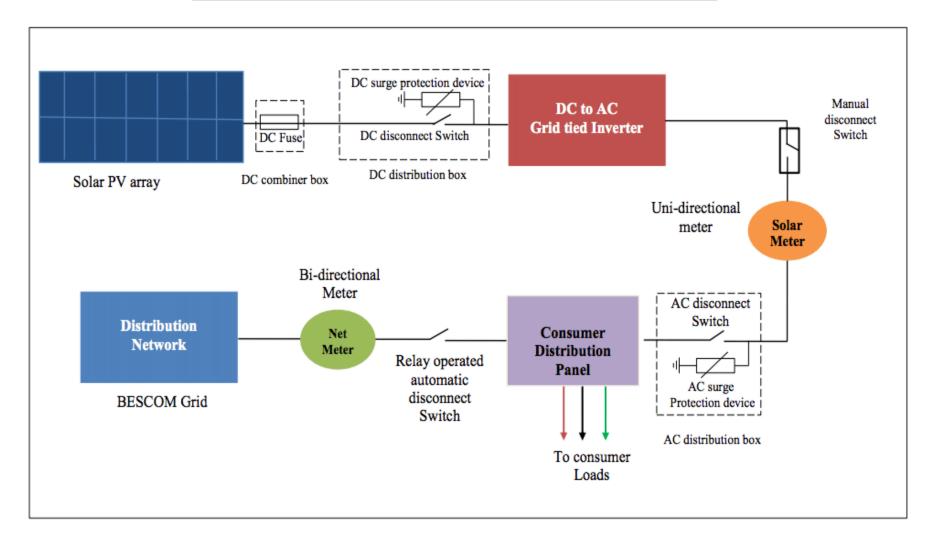
Net or Gross Metering

P R Reddy, Consultant – Training, NISE

Training for HAREDA Officials at NISE April 06, 2016



Single Line Diagram of Rooftop Facility for Net Metering Interconnection





Who are Eligible:

- Individual households
- Educational institutions
- Commercial establishments
- Industries etc.

Capacity limit is from 1KWp to 1000 KWp.

From 1 KWp to a 500 KWp (to those who avail subsidy.)
There is no upper limit for generation a roof top applicant with an Installed Capacity of 1KW can generate up to 1MWp.



Power Purchase Tariff:

Tariff as per KERC ORDER - DATED 10.10.2013 on Net Meter basis are as follows: (Tenure of the Power purchase agreement shall be for 25 years.)

Type of Solar Plant	Approved Tariff in Rs./Unit
Roof Top Solar PV plants (Without Subsidy)	9.56
Roof Top Solar PV plants (with MNRE subsidy)	7.2



Incentives to Go for Solar:

Net Metering: Net Metering allows the Solar Project Owner to feed the excess Solar Power to grid when the load available is low, say, during weekends in office buildings. The excess power fed is offset against the electricity used from the grid in the electricity bill.

Accelerated Depreciation: Accelerated depreciation of 80% is available under the Income Tax act for the Commercial and Industrial rooftop solar PV systems. This can provide significant savings to a SRTPV power plant generator who is a taxable assesse and has sufficient profits against which the depreciation can be charged.



March 2016 Rooftop Photovoltaic (RTPV) capacity in Bengaluru is around 3.5 MW

Karnataka's revised target is 2,300MW for 2021-22 (around 1,000 MW for Bengaluru).



Karnataka Electricity Regulatory Commission (KERC) released a discussion paper in November 2015 with some proposed revisions in the RTPV policy to address the aforementioned issues.

- (i) Replace net-metering with gross-metering or a Feed in Tariff (FiT) for domestic consumers.
- (ii) The proposed FiT rate lies between Rs 7.44-7.97/kWh.
- (iii) Installed capacity of any RTPV system cannot be more than the sanctioned electrical load.



Feasible business cases

there is also a proposed cap on the amount of units (50% of generated electricity) being exported to the grid at the specified net-metering rate. Anything more is to be billed at BESCOM's Average Pooled Power Purchase Cost (APPC) which was Rs 3.97/kWh at generation point for FY2014-15.

Industrial and commercial consumers procure electricity from BESCOM at Rs 5.9 - 7.95 / kWh.



Haryana Solar Power Policy, 2016.

To achieve the solar RPO (8%) i..e 3,200 MW, following initiatives shall be taken by the Govt of Haryana:-

- (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.
- (c) Development of solar parks through Saur Urja Nigam Haryana Ltd. (SUN Haryana).
- (d) Installation of solar power plants under schemes of Ministry of New & Renewable Energy like VGF scheme, unemployed youth/farmers scheme and purchase of power under bundling scheme of National Vidyut Vyapar Nigam Ltd. (NVVNL)/NTPC.
- (e) Installation of solar power plants on canal banks.
- (f) Rooftop grid connected solar power plants through net metering.
- (g) Rooftop grid connected solar power plants on cluster of Govt. /PSU buildings



Roof Top Target: 1,600 MW by 20121-22 Mandatory installation of Solar power plants

- The State Govt. vide its notification dated 03.09.2014 has mandated installation of solar power plant of 3% to 5% of connected load for categories of all residential buildings built on a plot size of 500 Square Yards and above,
- all government and private Educational Institutes, Schools, Colleges, Hostels, Technical/Vocational Education Institutes, Universities, Offices having connected load of 30 kW and above
- all private Hospitals and Nursing Homes, Industrial Establishments,
 Commercial Establishments, Malls, Hotels, Motels, Banquet Halls and Tourism Complexes, having connected load of 50 kW and above,
- all new Housing Complexes, developed by Group Housing Societies, Builders, Housing Boards, on a plot size of 0.5 Acre and above and all water lifting stations of Irrigation Department.



Haryana Solar Power Policy, 2016.

Roof Top Target: 1,600 MW by 20121-22

Mandatory installation of Solar power plants

In the residential sector, its mandatory enforcement shall be for the new residential buildings only whereas the installation of the rooftop solar power plants in the existing residential buildings shall be promoted by providing financial incentives.

For other sectors even the existing buildings will be covered. If the user covered under the mandatory provision is not installing the rooftop solar power plant as per the notification, then penalty shall be imposed as per government rules and regulations.



Haryana Net Metering

The grid connected rooftop solar photovoltaic systems of capacity equivalent to the sanctioned load can be installed for the captive use, for which the net metering facility shall be provided as per the Haryana Electricity Regulatory Commission regulations.

The electricity generated from such systems shall be cumulatively adjusted at 90% of the electricity consumption during the financial year.

In addition, during the FY 2015-16 an incentive @ 25 paise per unit shall also be provided in their bills on the solar power thus generated. The incentive payable under these Regulations shall be reviewed by the Commission every year along with ARR/Tariff petition for that year and the incentive payable accordingly for FY 2016-17 onwards.

The amendments issued by HERC, in this context, from time to time shall be followed.













