



Technical note: 030

Dated: 30th Dec 15

Subject: Salient features of MERC –Roof Top PV Solar System Net Metering Regulations. (part I)

In Maharashtra “Grid connected roof top solar power plant” was illegal till recently as connectivity norms and net metering policy was not defined. Finally MERC has released a regulation related to this on 10th Sept 2015. Since CEEAMA was perusing this and had submitted suggestions to draft of this regulation, , I thought the end result should be shared with all the members.

We will see the summary in two parts.

- A) Eligibility, allowed capacities and Expected net metering arrangements.
- B) Model agreement for energy purchase and related sanctioning procedures.

A) Eligibility, allowed capacities and Expected net metering arrangements.

- 1) Roof top solar PV system must be of capacity less than 1MW.
- 2) Eligible consumer is a consumer who consumes energy supplied by an authorised distribution licensee and includes housing societies, which can install the systems in common area and use for common loads.
- 3) Interconnection point has to be outgoing of distribution licensee’s tariff meter outgoing terminals – HT or LT as the case may be.
- 4) Cumulative capacity of all net metering roof top solar systems connected to any one distribution transformer, should not exceed 40% capacity of that transformer.
- 5) Distribution licensee is expected to declare on it’s website, the information regarding capacity available on each distribution transformer within 3 months since issue of this notification and should be upgraded quarterly.
- 6) Maximum capacity of rooftop solar system will not exceed eligible consumer’s contract demand in KVA or KW subjected to availability of such capacity on concerned distribution transformer and also will fit in following:

Voltage	Phases	In Municipal Corp areas	Other areas
230V	Single phase	Less than 8KW / 40 Amps	
415V	Three phase	Less than 150KW	Less than 80KW
11KV and above	Three phase	> 150KW & < 1000KVA in Mumbai I area	
11KV and above	Three phase	> 80KW & < 1000KVA in other areas.	

- 7) HT consumers may connect such system at LT bus bar, but net metering will be connected to HT.
- 8) Eligible consumer can upgrade / enhance the capacity of roof top solar within above limits.
- 9) Actual interconnection should follow
 - a) CEA (Technical Standard for Connectivity of the Distributed Generation Resources) Regulations, 2013
 - b) CEA (Measures relating to Safety and Electric Supply), Regulations, 2010
 - c) MERC (State Grid Code) Regulations, 2006, or as may be specified in future.
- 10) The roof top solar PV system may or may not have batteries.
- 11) A “NET METER” as per relevant CEA specifications must be installed and maintained by distribution licensee. Such a meter should have TOD recording facility if consumer is eligible for TOD tariff.
- 12) If consumer falls under a category where he can take benefit of “Rooftop solar generation towards it’s RPO – “Renewable Power Obligation”, he should install a “solar generation energy meter” else the same may be installed by distribution licensee to take the benefit.

We shall see details regarding Model agreement for energy purchase in next Note.

Prepared by:
Narendra Duvedi (Chartered Engineer)