

# Fact Sheet I

## Status of Rooftop Solar Power Plants in West Bengal

### Regulatory Framework:

#### Cogeneration and Generation of Electricity from Renewable Sources of Energy, WBERC Regulation, 2013

- **What it says?**

Roof-top Solar PV sources can be installed for injecting into the distribution system of a licensee by consumers, only when the total installed capacities is not less than 5 kW

- **Who can inject power to the Grid?**

- ✓ Government and private hospitals and health centres,
- ✓ Hospitals and health centres owned and run by any private charitable organization,
- ✓ Government and Government aided and private schools and academic institutions,
- ✓ Government offices and organizations,
- ✓ Any housing complex already promoted for this purpose by Government or any Government agency for the development of renewable sources,
- ✓ Local bodies like municipalities and panchayats,
- ✓ Consumers of any housing complex located in the same premises,
- ✓ Commercial/industrial organisations and
- ✓ Any institutions registered under any statute

- **Highlights**

- ✓ Injection of power from roof-top solar PV sources of the above mentioned consumer(s) shall be settled on net energy basis at the end of each year
- ✓ The MOU / PPA to be signed between the licensee and seller of roof-top Solar PV sources shall include necessary terms and conditions of meter reading, meter-rent, billing, payment, payment security arrangements, rate of delayed payment surcharge etc. However, meter-rent applicable for each meter shall not be higher than the meter-rent as applied for the seller as consumer

- **Challenges & how to overcome them:**

- ✓ Various statistics show that domestic sector is one of the largest electricity consuming sectors<sup>1</sup>. However, under the current regulation there is no clear guideline as to whether an interested owner of an **individual household** can install net meter connected rooftop solar power plant, if he/she meets the technical feasibility criterion
- ✓ A 5 kW solar rooftop plant approximately requires 500 to 550 square feet of shadow free space, which is at many times not available. An amendment to the current regulation with a provision to allow the consumers to install plants of capacity 1 kWp and more can be more beneficial

### Policy Space

#### Co-generation and Generation of Electricity from Renewable Sources of Energy Policy, 2012, Govt. of West Bengal

- **What it says?**

---

<sup>1</sup> ENERGY STATISTICS 2015, MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION, GOVERNMENT OF INDIA: Of the total consumption of electricity in 2013-14, industry sector accounted for the largest share (43.83%), followed by domestic (22.46%), agriculture (18.03%) and commercial sectors (8.72%)

- ✓ RE power to be achieved by 2022 – 2,706 MW; solar Power target through grid interactive projects by 2017 – 82 MW; target for small and rooftop SPV installations by the year 2017 - 16 MW
- ✓ All existing and upcoming commercial and business establishments having more than 1.5 MW of contract demand will be required to install solar rooftop systems to meet at least 2% of their total electrical load
- ✓ All the existing and upcoming schools and colleges, hospitals, large housing societies and Government establishments having a total contract demand of more than 500 KW will be required to install solar rooftop 18 systems to meet at least 1.5% of their total electrical load
- **Challenges & how to overcome them:**
- ✓ MNRE has set a revised target of 100 GW of solar power to be achieved nationally of which 40 GW is to be achieved through deployment of rooftop solar projects. According to the revised target set by MNRE, West Bengal has to achieve 5,336 MW of solar power in the state by 2022. The current policy does not provide a roadmap to achieve the same
- ✓ Availability and affordability of vast area of land in the state has been a major challenge. [A 1 MW solar power plant approximately requires 4.5-5 acres of land (for crystalline technology)]. In addition to this, it involves high capital investment, which at times do not have many interested takers
- ✓ Dearth of private investment; lack of incentives & schemes to attract the private entrepreneurs and inadequate proven business models, which can be replicated, have not helped the sector to grow in the state
- ✓ The sector has been suffering from lack of robust value chain and poor after sales service
- ✓ Lack of awareness amongst the various stakeholders, especially the end-consumers, have been a major challenge, which needs to be overcome
- ✓ A policy to stimulate the rooftop grid connected solar power sector in the state is required. A road map as to how to achieve the revised target being set by MNRE needs to be defined and this should also be capable to address the land and higher capital investment issues

#### The Kolkata Municipal Corporation Building Rules, 2009

- **Provision for use of solar energy**  
Provision for use of solar energy in the form of solar heater and/or solar photo cells shall be included in building plans in case of any new building whose height is to exceed 15.5 m or expansion of any existing building if its height is to exceed 15.5 m
- **Challenges**  
Lack of proper awareness, monitoring & evaluation have led to very little utilization of this by law

#### State level Initiatives:

- ✓ Plans to set up rooftop grid connected solar PV power plants in more than 1,000 schools and educational institutions
- ✓ Plans to set up minimum 20 kVA rooftop solar power plants in all state government offices, with rooftop spaces of 1200 Sq. ft. or more
- ✓ Installations in more than 300 educational institutes already done (Source: ToI, June 29, 2016 edition)
- ✓ A few installed solar rooftop plants:
  - Garden Reach Shipbuilders & Engineers Limited - 100KWp
  - Central Glass & Ceramic Research Institute - 37.5KWp
  - Ramkrishna Mission Vidyamandir, Belur Math - 153.4KWp
  - Dinabandhu Andrews College - 20KWp
  - Modernland Girls' High School - 10KWp
  - Bijoigarh Vidyapith - 10KWp and many others