



Roof Top Solar PV – Some Issues

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Roof Top Solar PV Classifications: -

- Stand Alone
- Grid cum Stand Alone
- Grid Connected



- Installation of Grid cum Stand Alone and Grid connected needs Regulatory Commission approval.
- West Bengal is the first state in the country to come out with Regulatory order for small Roof Top Grid connected PV Power .

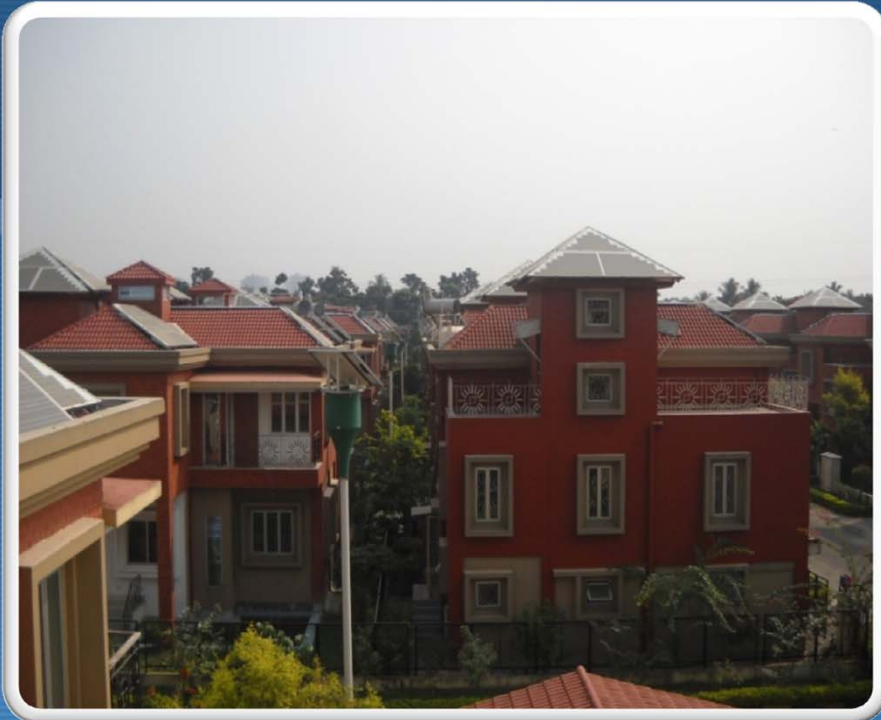
Country's first 7.5 kw Roof Top Grid connected SPV Power Plant was installed in the year 2008 with net metering agreement between CESC Ltd and Gurudas College, Kolkata.



7.5 kw Grid Connected Roof Top Power Plant at Gurudas College, Kolkata

There after following Roof Top Solar Power Plants have been installed.

Sl. No.	Name of Location	Capacity	Name of Power Utility
1.	Rajbhavan, Kolkata	50 kw	CESC Ltd.
2.	North 24- Pargana Zilla Parishad	50 kw	WBSEDCL
3.	Gosampad Bhavan, Salt Lake	30 kw	WBSEDCL
4.	Bethun College, Kolkata	7 kw	CESC Ltd.



The concept was officially tried in a Solar Housing Complex in New Town in 2007

- WBSEDCL did not allow net metering at that time. Systems are working in Grid cum Stand Alone mode.

Observations

- Initially DISCOM objected to such grid connectivity. Later, under the pressure of Regulators they agreed for such connectivity only for Institutions, Government Housing and Govt. offices.
- Negotiations are going on for higher tariff in export and normal tariff in import for the installers.
- Two large Roof Top Systems 125 kw each are coming up in University of Calcutta and Indian Association for the Cultivation of Science, Kolkata.

Observations

- High efficient crystalline Solar Modules are preferred for Roof Top System.
- Grid connected BIPV system are not economically viable due to low generation.
- Net metering may be an attractive policy only when grid parity comes in Solar PV.
- Shadow at a later date is a very big risk factor in regard to Solar Roof Top System since in urban areas lot of old buildings are being demolished and multistoried buildings are coming up.

Observations

- Great care should be taken to finalise Module installation site.
- Cannot be compared with Australia or US where residential buildings are all similar in appearance.
- It suits ideally where Air Conditioners load is high.



THANK YOU

