

No.RSA/Dec14/01 Electrical Engineering Department INDIAN INSTITUTE OF TECHNOLOGY KANPUR 208016 INDIA

09 Dec 2014.

Dr. RAGHUBIR SINGH ANAND Consultant, Ex-Chief Research Engineer

## Tender Notice for Grid tied Solar Inverter for 9KWp Solar Power Plant

Quotations are invited for a Grid tied solar inverter with following specifications:

- 1. Rating 9-12 KWp, 3 phase AC grid tied string inverter. Quantity 1.
- 2. Plant size 9 KWp.
- 3. Efficiency more than 96.5%
- 4. Inverters should be nominally rated to inject full rated power into 415 V, 50 Hz, 3-phase, 4-wire AC grid.
- 5. Inverters must incorporate all standard protection features including, but not limited to, overload, grid over/under voltage, incorrect phase sequence, frequency deviation, short-circuit, input dc over/under voltage, input cable disconnection, line surges etc.
- Inverters should also be additionally capable of injecting full rated power under normal grid voltage fluctuations (400-460 V line-to-line, rms) and frequency variations (48.5 Hz – 51.5 Hz).
- 7. Harmonic injection under all operating conditions must adhere to IEEE-512, 1992 norms.
- 8. Insolation sensitive auto-startup (on availability of daylight) and auto-shutdown (in absence of daylight) features must be incorporated.
- 9. Isolation between inverter and AC Distribution Board must be provided in case any PV array output terminal is earthed.
- 10. Connectivity through inverter owner's portal using web box/internet to make available DC voltage, currents, daily, weekly, monthly, yearly power & energy, AC voltage, current, frequency, power factor, temperature and Sun Global irradiance. This data should be made completely available to IITK without any additional charges for the entire operational lifetime of the inverter.
- 11. Warranty at least 5 years, 10 years will be preferred.
- 12. Validity of Quotation for 60 days.
- 13. Last date of receipt of Quotation is 19 Dec 2014, 3 PM.

(RS Anand)