## <u>Tender for Roof Top Solar Power Plant at IIT Kanpur</u>: <u>Mintute of the Pre-Bid meeting held at</u> at ACES Conference Room, EE, IIT Kanpur

The following were present:

## Date: 4 Sep 2013, Time 3-4 PM

## <u>IITK side</u> <u>Industry side</u>

Prof. P Sensharma, EE, IITK

Mr. Ravi Kaushal, Firewood Smart Green
Prof. Anoop Singh, IME, IITK

Mr. Gaurav Vyas, REAP

Mr. HM Khan, Supdt, Central Store, IITK

Mr. Vikrant Singh Dhankar, Vikram Solar
Mr. Raghvendra Singh, IWD, IIT Kanpur

Mr. Sharad Shukla, Tata Solar Power

Mr. Shaym Rastogi, Su-Kam (Joined late)
Mr. Vijay Rai, Luminous Power

Dr. RS Anand, EE, IIT Kanpur, Convener

Mr. Trilok, Luminous Power

## Date 6 Sep, Time2:30 -3:45PM

Prof. P Sensharma, EE, IITK

Prof. Anoop Singh, IME, IITK

Mr. Rahul Joshi, VS EnviortechPvt Ltd.

Mr. HM Khan, Supdt, Central Store, IITK

Mr. Mr Kushvendra, Gautam Polymers

Mr. Raghvendra Singh, IWD, IIT Kanpur

Mr. Sandip Ghosh, Waaree Energies Ltd.

Mr. Deepak Sahu, EE, IITK

Mr. MukeshTripathi, Waaree Energies Ltd.

Mr. Anand Kumar, Delta Power Solutions (

Mr. Gopal Gaur, EE, IITK Mr. Anand Kumar, Delta Power Solutions (I) Pvt Ltd Dr. RS Anand, EE, IIT Kanpur, Convener

Dr RS Anand, Convener welcomed all present in the meeting and introduced about the IITK roof top solar power plant requirements. He invited industry representative to raise their point of clarifications. The following points were raised and its clarification/decision is given below.

Sr.No.	Point of raised	Clarification by IITK
1.	Can inverters other than 50 KWpcapacity could be supplied?	Considering the difficulty of procurement and representation from large number of perspective bidders, this required as followed there should be at least <b>One</b> inverter of at least 50 kW capacity for one of the roof top power plant, rest of inverters should have a minimum capacity of 10 kW. Other conditions remain the same as stipulated in the original Tender Notice.
2.	Inverter Installations on roof.	Inverter installation & its protection at rooftop with a canopy or a metallic enclosure (like that used for DG sets) for durable weather

		protection.
3.	Warranty on structure is required to be 25 years. However, MNRE specify only 10 years warranty on structures. Clarify.	Structure should be made of high quality BIS standard GI pipe/angles, bolts and fasteners. Aluminum structure of high quality BIS standard can be used if this is certified to meet the panel loads, does not create mechanical stress in the panel due to thermal expansion of structure, withstand the specified wind load and meet other criteria as specified.
4.	Provision for Anti-islanding feature to be disabled.	As already clarified, this is an <b>optional feature</b> . It will be good if some manufacturers provide a disabling feature for the same
5.	RCD to prevent accidental live wiring of module casing & support structure, Point I- (iii)	Yes, it is required to safeguard against the accidental short circuiting of the live panel wires. Tuning to prevent spurious tripping must be ensured.
6.	For option, >=20% efficiency solar modules will have to be imported, no subsidy is given by the MNRE.	We need >=20% efficiency solar modules for study of its performance with respect to normal panels. Incase such high efficiency solar modules are imported and on which subsidy can't be availed by the suppliers, they can provide quote based on this consideration of solar modules.
7.	MNRE allows subsidy only on 100KWp system.	100 KWp is the limit for single building. If system is installed on different buildings, subsidy is allowed. The proposed system will be installed on four different buildings.
8	Subsidy on other part and its quantum.	IITK needsquotation for Option I, 2 & 3 against which Purchase Order could be issued. Claiming subsidy remains the responsibility of the supplier/bidder. IITK will provide necessary documentation as required, subject to existing Institute rules, to place a claim for subsidy. The financial bid should account for any subsidy the suppliers can claim from MNRE and its quotation should not be conditional on part or full receipt of the subsidy for MNRE or other sources.
9.	Selection Criteria including the Channel Partners	The criteria includes the (i) fulfillment of technical specification, Terms & Conditions (ii) the lowest price quoted and also including (iii) the technical & financial performance ratings as given by MNRE. Depending on the above criteria, 5 bidders will be short listed.

10.	EMD	Presently, IITK has not fixed any EMD. However, short listed perspective suppliers will be required to execute a Bank Guarantee (BG) of 5% of the order value as quoted by them within 5 days of intimation of their selection by e-mail. If first one fail to submit the BG, order will go to second in the list and similarly, if first & second are unable to submit the BG, order will go to third party in the list of selection. BG should be valid up to the end of six month commencing from the date satisfactory installation, commissioning & Inspection Report.
11.	Can we give Performance Monitoring systems (SCADA) independent of Inverter feed?	As mentioned in tender documents, data from inverter owner's portal is okay with us for performance & ambient conditions monitoring with a frequency of at least of 15 minutes.  Meter required in ACDB should be accessible through RS485/LAN (local area network) giving instantaneous power, current & voltage, power factor, frequency (Hz) and total energy, total running hour.
12.	Date of Extension of Tender submission by one week.	IITK expressed its inability to extend date by one week. However, date is extended to 11 Sep 2013, 2PM.
13.	Visit to the site	A tour to the site was conducted.