EXPRESSION OF INTEREST

SOLAR ENERGY based 30 TR Chilled Water System for Air conditioning.

Indian Institute of Science Education & Research (IISER) Mohali intends to engage an established, experienced and reputed companies for the Design, manufacture/fabrication, supply at site erection, commissioning and O & M of a chilled Water System of 30 Tonne Rating for the air conditioning of Lecture Hall complex of the Institute at its new Campus at Sector 81, SAS Nagar, Dist. Mohali (Punjab).

1.1 The steam/hot water required for the heat exchanger system should be generated by using Solar Energy (by Schaeffer type parabolic mirrors and concentrators or any other suitable (Solar based) system, along with a stand by boiler (HSD/ LPG).

1.2 The chilled Water (at 8 degrees) should be generated by Va pour Absorption type chiller or any other Eco-friendly system avoiding emission to the atmosphere.

1.3 The interconnecting piping should be designed to enable hot water feed direct to the AHU's (by passing the chiller) for heating the Lecture Halls in Winter.

2.1 The company / supplier should supply both the Solar and Chiller modules from their own in-house expertise for design and manufacture. (Standard components like pumps, motors, valves, instrumentation etc could be outsourced from reputed manufacturers).

2.2 The company / supplier should have successfully installed 3 such composite systems (of 30 TR or bigger) in India.

2. Experience in processing applicable government subsidies / grants would be desirable.

3.0. **Scope of Work** (Supply and Installation)

3.1. The Solar Component, along with suitable standby boiler (HSD / LPG type) for use in non-sunshine hours. The parabolic solar mirrors should be capable of automatically tracking the solar path on daily basis.

3.2. Chiller Plant (Va pour Absorption type or any other recommended type) to provide chilled water at 8 degree Celsius for 30 TR capacity A/c.

3.3. Cooling Tower / Towers as required, including make up water tank.

3.4. Any water treatment (like softening) system as required, for hot water and chilled water circuits (The Institute will provide the test results of the available bore well water).

3.5. Chilled water piping (with the required insulation and protection) from the Chiller plant to the AHU's (including the necessary flanges) and return piping to the chiller, with all valves, meters etc.

3.6. All interconnecting piping of Solar hot water system, chiller plant and cooling towards etc., with the necessary pumps, meters, valves controls etc.

3.8. All electrical panels and other equipment to run all the pumps, motors etc. All control / safely instrumentation.

3.9. All other enabling items and works not expressly mentioned but necessary to make the installation / system complete and workable.

3.9.1. Operation and Maintenance of the chilled water system during the warranty period of 1 year from the date of commissioning.

3.9.2. Comprehensive maintenance contract should be entered into the beginning itself, for 4 years after the first year under warranty.

3.9.3 IISER staff should be trained in O & M during the 1st year.

3.9.4 To provide subsidy amounting to 5400/- per sqm of dish area or 30% of the total project cost whichever is lower

4.0. **The Institute will provide**

4.1. Shadow free land area for installing the mirrors.

4.2. Plant room to house the chiller plant, boiler, foundations, supports etc as per the suppliers layout.

4.3. Electric Power Connection at the main distribution board of the supplier in a pillar box near the plant Room.

4.4. Process and make up water (Quantity to be specified by the supplier) in an underground sump to be built by the Institute.

4.5. All low side works of the air conditioning systems, including AHU's, ducting and further downstream works.

5. The Expression of Interest should comprise the following:

5.1 Company profile.

5.2 Average annual turnover for the last three financial years. Should not have suffered “loss” in more than one financial year in the last three financial years.

5.3 Experience of the company in the relevant /similar field in the past seven years.

5.4 A write-up on the systems offered, with technical specifications.

5.5 An affidavit that the company/agency has never been blacklisted by any Govt/Semi Govt/Corporation.

5.6 Earnest money (part 1 – non refundable) of Rs.5,000/- only (in the form of a Demand Draft

payable at Chandigarh, in favour of Registrar, Indian Institute of Science Education and Research, Mohali).

6.1. The Expression of interest should reach the undersigned on or before 15/4/2011(up to 1500 hrs).

6.2. The companies who are qualified on technical evaluation (by a Committee duly constituted by the Institute) will be asked to submit the commercial offer within 2 weeks from the date of intimation, along with the EMD part II for 2% of the quoted price (refundable to the unsuccessful bidders)in a separate sealed cover.

7.1. The Lecture Hall Complex is expected to be ready by end October 2011. The low side Air conditioning works (to be undertaken by the Institute) would be ready by end August 2011.

8.1. The successful bidder is to complete the installation of the Chilled Water System by end September 2011 so that the commissioning trials could be taken up expeditiously.

9.0. The successful bidder should unconditionally indemnify the Institute from any legal action by any person, company or body, national or international arising out of any patents or copy-rights with respect to any component or design that is part of the system offered herein.

10.0. Any dispute arising between the Company and the undersigned in the execution of this work will be referred to a sole arbitrator to be appointed by the Director, IISER Mohali.

11. 0 Any legal action or suit with respect to this work will be subjected to the jurisdiction of the High Court of Punjab and Haryana at Chandigarh.

12.0 The Institute reserves the right to reject any application and to annul the process, at any time without any liability, and without assigning any reasons thereof.

Executive Engineer
IWD, IISER Mohali