

# PANJAB UNIVERSITY, SECTOR 14, CHANDIGARH

## TENDER DOCUMENT FOR THE PROCUREMENT OF VARIOUS ITEMS



Last Date for issue of Tender Document in respective institutes/departments/centres:	10.00 a.m. on 06.08.2012
Last Date and Time for receipt of Tender in respective institutes/departments/centres:	3.00 p.m. on 06.08.2012
Date & Time of opening of Technical bids in respective institutes/departments /centres:	11.00 a.m. on 07.08.2012
Date & Time of opening of the Price bids in respective institutes/departments /centres:	Consult the respective department.

**Tender Fee Rs.1000/-**

## Important Notes:

- I. This tender has been invited by the Panjab University combined for procurement of various items in the different institutes / departments / centres of Panjab University. The details of tender documents, name, quantity and specifications of items to be procured along with terms and conditions are separately available in the office of respective institutes / departments / centres. **The same can also be downloaded from the link given below against** respective institutes / departments / centres. **The interested parties are requested to submit separate tender bids for each department.**
- II. The tender document, name, quantity and specifications of items along with terms and conditions may be obtained from the office of the chairperson/director/principal/co-ordinator of the respective institute / department / centre by submitting demand draft of `1000/- payable at Chandigarh in favour of Registrar, P.U. Chandigarh. The sale of Tender Document shall close one day before the last day of receipt of tender.
- III. No postal request shall be entertained for sending the Tender Document.
- IV. Tender fee of ` 1000/- is to be submitted along with the Tender if it is downloaded from the Website.
- V. Clarifications, if any could be sought from the Chairperson/Principal/Director/Coordinator of the respective Department/Centre/Institute in writing within the stipulated last date of submission of the tender.
- VI. The important dates for this tender are:

Last Date and Time for receipt of Tender in respective institutes/departments/centres	3.00 p.m. on 06.08.2012
Date & Time of opening of Technical bids in respective institutes/departments /centres	11.00 a.m. on 07.08.2012
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# CIL/SAIF Panjab University

## Chandigarh

### Tender

#### General Terms and Conditions

This University is interested in the supply, installation and commissioning of Gen. set as per the technical specifications given in the Annexure B.

- (a) Separate Performa-Invoices for each of the equipment are invited from the interested Principals/manufacturers/authorized agents for supply of the same. The Performa-Invoice should be in triplicate and in the name of the Chairpersons/Directors/Coordinators of respective Departments/ Institutes/Centre, Panjab University, Chandigarh.

The latest hour and date of receipt of the offer in the respective department is up to 02:00 p.m. the 15th day from the date of Publication of this Tender Notice.

- (b) The Technical bid shall be opened at 3.00 p.m. on the next working day of the last date of receipt of tenders. The date and time for opening of the Price Bids shall be the 5<sup>th</sup> day of the opening of the technical bid. In case the date of opening of the bids fall on the day which is declared public holiday, these shall be opened on the following day at the same time.
- (c) Only manufacturers or their sole authorized distributors/sole agents are entitled to submit the Performa Invoice from the Principals, otherwise tender shall not be considered. All offers other than those from the manufacturers should be supported by an authority letter from the manufacturers authorizing the firm to tender on their behalf. Certificate or a photo-stat copy thereof to the effect that you are the manufacturers of the equipment,' authorized sole distributors or sole agents for manufacturer on whose behalf you are quoting, must be included in the documents.
- (d) The tenderer must be a manufacturer or his authorized agent (specifically against this tender for the subject goods) and should have successfully executed contracts for similar and/or identical goods in the past three years prior to the date of tender opening.
- (e) The detailed technical specifications are given in Annexure B.
- (f) Technical specifications are intended to be descriptive only and not restrictive. The bidder may substitute alternative standards, brand names and/or catalogue numbers in its bids, provided that it demonstrates to the purchaser's satisfaction.
- (g) Clarifications, if any could be sought from the Chairperson of the respective Department/Institute in writing within the period before the stipulated last date of receipt of the tender.
- (h) That the substitutions are substantially equivalent or superior to those designated in that 'Technical Specifications

## **GUARANTEE / WARRANTY & AMC/CMC**

- (a) Guarantee/warranty shall be quoted for 36 months after installation.
- (b) In addition to quoting for the equipment, tenderers must quote the charges for Annual Maintenance Contract (AMC) for a period of 2 years for maintaining the equipment at this University after the period of warranty/guarantee. During, the service contract period, the firm shall provide four preventive maintenance visits and in addition attending to all emergent and break-down calls. The service contract charges should be quoted for labour cost only and should not include the cost of any replacement parts/components that may be needing replacement. During the service contract period replacement of parts/components that may be needing replacement shall be made available by the Institute to the firm at the Institute's own expense. The charges shall be paid to the firm in quarterly instalments after satisfactory service.
- (c) In addition to quoting the charges for the AMC, the firm must also quote the charges for comprehensive Maintenance Contract (CMC) for a period of 5 years after the completion of Service Period of guarantee/warranty. The CMC charges should be quoted for labour cost as well as cost of any replacement parts / components that may be required for keeping the equipment functional.
- (d) Tenders not containing service contract charges shall be considered incomplete and shall be rejected. The charges of AMC and CMC will also be taken into account while comparing the prices.

The tenderer shall give a list of nearby locations where their equipment had been installed. The University reserves the right to inspect such institutions/labs. and see actual performance of such equipment. The Department may also ask for demonstration of the equipment in the department at the time of technical evaluation, which shall be mandatory.

## **BID, GUARANTEE AND SECURITY:**

The tenderer is required to furnish Bid Guarantee and Security as per Annexure 'A'.

Any effort by a bidder to influence the purchaser in the purchaser's bid evaluation, bid comparison or contract award decisions shall result in the rejection of the bidder's bid and also banning of business dealings with the bidder for a period of three years from the date of such ban.

The detailed instructions for the preparation and submission of the tender and the terms and conditions of the tender are given in the enclosed Annexure A. Tenderers must note carefully that any infringement of the specific requirements contained therein may invalidate the tender.

Director,  
Department of CIL/SAIF/UCIM  
Panjab University, Chandigarh

## Annexure A

### Other Instructions

1. A person signing the tender form or any other document forming part of the contract on behalf of another shall be deemed to warranty that he has authority to bid such others and if on enquiry it appears that the person so signing had no authority to do so, the purchaser may without prejudice to other civil and criminal remedies against the contract, hold the signatory liable for all costs and damages and forfeit the Earnest Money.
  - i. Rates and Service charges should not be quoted in the Technical bid.
  - ii. All pages of the Technical Bid/Price Bid shall be page numbered. In case of triplicate copies, separate copies shall be page numbered separately.
2. Tenders/Performa Invoices not accompanied by detailed information as required, are liable to be rejected.
3. **EARNEST MONEY DEPOSIT AND PERFORMANCE BOND; BANK GUARANTEE**
  - a) The tender must be accompanied with Earnest Money as detailed below in a lump sum amount in the form of Demand Draft valid for one year on a scheduled bank/term deposit receipt valid for a period of one year from any scheduled bank in the name of the Registrar, Panjab University, Chandigarh. Earnest Money in any other form will not be accepted F.O.R. cost of equipment up to Rs. 10.00 Lacs: Earnest money : Rs. 25,000/-  
Between Rs.10.00 Lacs to Rs. 20.00 Lacs : Earnest money : Rs.40,000/-  
Between Rs.20.00 Lacs to Rs. 50.00 Lacs : Earnest money : Rs.50,000/-  
Beyond Rs.50.00 Lacs : Earnest money : Rs. 1.00 Lac.
  - b) Bids not accompanied by Earnest Money as stated above or less than the amount stipulated above shall be summarily rejected.
  - c) Earnest Money/security deposit/any other sums of the tenderers lying with the University in connection with any other tender/case will not be considered against this tender.
  - d) The successful tenderer shall be required to furnish a Contract Performance Guarantee Bond in the shape of Bank Guarantee in favour of Director, SAIF/CIL, Panjab University along with the undertaking for an amount equivalent to 2% for AMC/5% for CMC of the FOB value, or as the case may be of the equipment towards the execution of the Agreement and the warranty. The Bank Guarantee should be valid for 30 months. The Bank Guarantee for 2% for AMC/5% for CMC of the FOR value shall be submitted within a period of 30 days after the placement of the Supply Order failing which the order will be liable to be cancelled and the earnest money forfeited.
  - e) The University would return the earnest money mentioned to the successful tendering firm on the submission of the Bank Guarantee, to cover the service contract period after the expiry of guarantee/warranty period of 36 months.
  - f) The successful tenderer will submit Bank Guarantee equivalent to 2% of the FOR value in case of AMC or 5% of the FOB value in case of CMC, as the case may be.

4. The University does not pledge itself to accept the lowest tender and reserves to itself the right of acceptance of the whole or a part of the tender, or portion of the quantity offered, and the tenderers shall be required to supply the same at the rate quoted. The University reserves to itself the right to accept or reject a part or all the tenders without assigning any reason thereof
  
5. **GUARANTEE/WARRANTY**  
The guarantee/warranty against defects of manufacture/ workmanship and poor quality of components for the entire equipment and the work conducted under the contract shall be for a period of 60 months. The term satisfactory commissioning and handing over wherever used in terms of tender and Agreement will mean satisfactory and faultless functioning of the equipment for 90 days, and of works conducted there with covered under the contract in working order. During the guarantee/warranty period, the replacement of any part of the equipment or rectification of defects of works will be free of cost. Further, the defective parts/equipment shall be returned by the purchaser to the Indian Agent after making replacement. During the guarantee/warranty period the uptime will be required to be maintained. If the down-time exceeds five consecutive days at any time the guarantee/warranty period will be extended beyond twenty four months to a duration equal to the total of such periods of downtime during the period of warranty.
  
6. The tenderer will be required to furnish guarantee/warranty as under:
  - a. The tenderer should submit a written guarantee/warranty from the manufacturers stating that the equipment being offered is the latest model as per specifications and that spares for the equipment will be available for a period of at least 10 years after the guarantee/warranty period. The manufacturer should also warranty/guarantee that it will keep the Institute informed of any up-date of the equipment over a period of next 5 years and undertake to provide the same to the Institute at no extra cost.
  - b. Guarantee/warranty that they will supply regularly any items of spare parts requisitioned by the purchaser for satisfactory operation of the equipment till the life span, to be decided mutually of the equipment, if and when required on agreed basis for an agreed price. The agreed basis could be an agreed discount on the published catalogue price or an agreed percentage of profit on the landed cost.
  - c. Guarantee/warranty to the effect that before going out of production of spare parts the manufacturers and/or tenderer will give adequate advance notice to the purchaser of the equipment so that the latter may undertake to procure the balance of the life time requirements of spare parts
  - d. The guarantee/warranty to the effect that the manufacturers will make available to the University, the blue-prints and drawings of the spare parts if and when required in connection with the equipment.
  
7. The tenderer shall furnish the following warranty/ guarantee in case the contract is placed on him :-
  - (a) The tenderer hereby declares that the goods/articles supplied to the purchaser under this contract shall be of the best quality and workmanship

and shall be strictly in accordance with the specifications and particulars contained/mentioned in the clauses here of and the tenderer hereby guarantee/ warranty that the said goods/ articles conform to the description and quality aforesaid. The purchaser will be entitled to reject the said goods/ articles or such portion thereof as may be discovered not to conform to the said description and quality. Such rejection of goods/articles will be at the seller's risks and all the provisions herein contained relating to rejection of goods, etc. shall apply. The contractor/seller, shall, if called upon to do so, replace within a period of fourteen days or such further period as may be extended from time to time by the purchaser at his discretion, on an application made thereof by the tenderer, the goods/articles or such portion thereof as rejected by the purchaser. In such an event, the above mentioned warranty/guarantee period of the entire equipment shall be extended by the time taken for these replacements. Otherwise the tenderer shall pay to the purchasers such damage as may arise be reason of breach of the conditions herein contained. Nothing herein contained shall prejudice any other right of the purchaser in that behalf.

- (b) Tenderer should state categorically whether they have fully trained technical staff for installation/commissioning of the equipment and efficient after sales service.
- (c) Tenderers should categorically confirm that they will give free "After sales services" during guarantee/ warranty period from the date of installation, satisfactory commissioning and handing over of the project/ equipment.
- (d) It is specifically required that the tenderer will supply all the operating and service manuals along with blue-prints and drawings including circuit diagrams of the equipment supplied as well as its components.

**8. FOR DELAY IN CONTRACT:**

The successful bidder will be required to enter into an Agreement with the University on a non-judicial paper of Rs.30.00 for the supply and satisfactory installation of the equipment as defined above as per specifications and terms and conditions listed in the document and agreed upon.

- 9. The whole system will be operated by the company engineers/experts for a period till . till satisfactory installation and operation.

**13. TRAINING OF PERSONNEL**

The successful tenderer will be required to undertake to provide at his cost technical training for personnel involved in the use of the equipment at site at University immediately after its installation. For this purpose, the company experts shall be required to operate and train the University personnel at site.

**14. SUPPLY, INSTALLATION AND COMMISSIONING OF THE EQUIPMENT:**

The supply, installation and commissioning of the equipment shall be as per term and conditions given in this annexure and those given in the Agreement to be signed by the successful tenderer. The scope of work includes the installation and satisfactory commissioning of the equipment by the firm and training of personnel.

## Annexure B

### TECHNICAL SPECIFICATION OF 160 KVA DIESEL GENERATING SET

#### A. DIESEL ENGINE

CPCB NORMS COMPLIANT 4 – stroke, Water Cooled, Diesel Engine Designed to run continuously at 1500 RPM, arrangements with

- Engine Operator/Maintenance & Spare parts Manual.
- Engine Spare parts Manual.
- Engine Warranty Certificate.
- Engine test certificate.

#### B. ALTERNATOR

160 KVA Rating , 415 Volts, 3 Phase, 4 wire, 0.8 p.f., (lag),50Hz, 1500 RPM, in accordance with IS 4722 as per following specifications:

- Rating: Guaranteed to deliver required output at the ambient temperature conditions. Suitable for an over-load of 10% for 1 hour in every 12 hours operation.
- Voltage Regulation: Provided with fast response thyristor type electronic automatic voltage regulator, which holds output voltage within desired limits. (+/- 1%).
- Excitation: Self excited-self regulated.
- Alternator Loading: Suitable for taking rated load immediately after machine reaches rated voltage and speed.
- Vibration: Suitable for direct coupling with Engine and mounted on common M.S. Channel base frame.
- Enclosure: Screen protected drip proof enclosure with IP – 23 degree of protection.
- Cooling: Air Cooled type with radial fan mounted on Rotor.
- Winding and Insulation: Insulation class H as defined in IS – 4722

#### C. ESSENTIAL ACCESSORIES

- One No. MS Base Frame suitable for mounting of the offered engine and alternator. One Following set of essential accessories are supplied with each DG set.
- One No. Day fuel tank of standard capacity complete fuel gauge, inlet/outlet connections, drains plug, etc.
- One No. 12 Volts DC Battery of suitable capacity with leads.
- 1 Set of AVM Pads fitted in Base Frame.
- All above accessories are housed in acoustic enclosure.

#### D. MANUAL CONTROL PANEL

- One No. Moulded Case Circuit Breaker of suitable capacity.  
The Control Panel body will be fabricated out of 16 SWG MS sheet. Panel will be suitable for Canopy mounting, Indoor Installation, dust & vermin proof, Copper Control cable of suitable size is used. Cables are ferruled for proper maintenance/checking/wiring of panel. Detachable cable gland plates are provided. The panel will be equipped as follows:
  - Aluminium Bus Bars of suitable capacity provided with termination.
  - 3 Nos. Current Transformers of suitable ratio.
  - One set of instrument MCB'S.
  - Microprocessor based controller KG545 controlling various Mechanical & Electrical protections with display and indications of Electrical and Mechanical Parameters are as follows.

#### 1. Display Parameters:

- A. Electrical Parameters: Phase Voltage, Line Current, Frequency, Average Voltage, Average Current, KW, KWH, KVA, KVAR, Power Factor, Earth fault current.
- B. Mechanical Parameters: Lube Oil Pressure, Coolant Temperature, Engine Speed, Fuel Status, Engine Run Hours, Battery Voltage.



## 2. Protections:

- A. Electrical Protections: Under /Over Voltage, Under /Over Frequency, Phase Failure, Phase Sequence Reverse, Over Current, Over KW.
- B. Mechanical Protections: Under /Over Speed, Low Lube Oil Pressure, High Engine Coolant Temperature, Low Fuel Level Alarm, Start/Stop fail, Charging alternator fail.

## TECHNICAL SPECIFICATIONS OF ACOUSTIC ENCLOSURE

### SPECIFICATIONS OF SOUND PROOF ENCLOSURE

#### Construction :

- The container is designed for easy access to serviceable parts.
- Modular construction for easy assembling and dismantling.
- Fabricated out of CRCA sheet of 14/16 SWG. Base frame is made out of sheet steel minimum of thickness 3/4/5 mm.
- The hardware is of high tensile grade i.e. bolts of 10.9/8.8/or Suitable grade.
- Hardwares are of SS or MS and all hardwares are surface treated.
- Fuel Tank is fitted in/on the base frame having suitable capacity as a day tank fitted with breather and all other necessary assemblies.
- The fuel level measurable through fuel gauge.
- There is provision for filling the fuel from Inside/outside the enclosure
- In case of integral Fuel tank, connected to engine with flexible fuel pipes.
- Batteries are accommodated in a separate tray inside the enclosure.
- There is provision for drain plugs for draining mobile oil/ diesel.
- The doors are gasketed with high quality EPDM gaskets to avoid leakage of sound.
- The door handles are lockable type.
- Painting :
- The sheet metal components are hot dip seven tanks pre-treated.
- To have long life of container it is P.P. based powder coated (inside as well outside)
- Base frame is epoxy or PU or powder coated.
- Acoustic Insulation:
- Sound proofing of enclosure is done with quality rock wool/mineral wool confirming to IS-8183 of suitable thickness and density.
- The rock wool/Glass wool is further covered with fiber glass cloth/fiber tissue paper fire resistive and perforated powder coated sheet of 0.6mm thickness.
- Residential silencer is provided to control exhaust noise.
- Interconnection between silencer and engine is through stainless steel flexible hose/ pipe.
- Sound attenuators/barriers are provided at air entry/exit to the container for sound reduction.

#### **IV Ventilation & Air Circulation :**

The system is designed to provide air inlet/exhaust through acoustic louvers for efficient air circulation and having following special features :

- (a) Adequate ventilation is provided to meet air requirement for combustion and heat removal.
- (b) The temperature inside the enclosure limited to 5-7°C over and above ambient temperature near air suction point.

#### **V Electrical :**

- i) Provision for Neutral/ Body Earthing:

Points are available at side of the enclosure with the help of flexible copper wires from alternator neutral, and electrical panel body respectively. The Neutral earthing point is isolated through DMC insulator mounted on enclosure.

- ii) Engine Panel is mounted in the container itself. All parameters are visible from outside and all operation buttons are accessible easily.