

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NIQ No. CSE/11-12/01 (IRD)

Due Date: 10<sup>th</sup> August 2011

### Background

We are interested in procuring 01 No. **40 KVA UPS**.

The Manufacturer/dealer must have a strong proven service network in Delhi serving other public sector institutions and other reputed educational institutions. References from other providers will be required. There will be a two bid system- a technical bid and a financial bid. The Technical Bid should also contain specifications regarding heating effects, power consumption, etc. The technical bid should also contain post warranty AMC Terms. Technical Bid should not contain any commercial information else bid will be rejected. The Financial bid will be opened only if technical bid functionally meets the tender specifications.

### Required Specifications:

Technology: True on line Double conversion, with high frequency PWM controllers with IGBT, MOSFET or equivalent transistors as switching device (Both rectifier and inverter).

Switch Over: In the event of UPS failure, insufficient battery charge, output bus failure, overload condition, etc. the load must be seamlessly transferred without interruption.

Must provide input phase reversal correction.

### Output

Output Power Capacity: 40 KVA UPS

Nominal Output Voltage: 230V, Single Phase, 50 HZ

Efficiency at full load: 95%

Output Voltage distortion: <2V @ static and 12V@ dynamic load (100% change)

Output Frequency distortion: <.05 Hz (Sync range 5Hz, Static stability 1HZ)

Crest Factor: 3:1

Surge Factor: 1.5

Load Power Factor: 1.2

Waveform Type: Sine Wave

Load Type: Must be designed for sustained load of above 36KVA

Output Connections: Single phase (3 Phase output meeting all specifications on each phase in case of fully unbalanced load will be considered).

### Input

Input: 3 Phase

Input Voltage Range: 310V-475V (For Mains Operation)

Input Frequency: 44-56 HZ (For Mains Operation)

Input Type; Sustained Voltages less than 375V and Frequency >53 Hz/<47Hz

Input connections: Hardwire 5- Wire (3PH + N + G)

Fallback: capability for dual mains input

#### Physical

Operating Temperature: 20 to 43<sup>0</sup>C

Relative Humidity: 95% non-condensing

Online Thermal Dissipation: <5500.00 BTU/hr.

#### Management

Network manageable with SNMP (Must provide remaining running time at current load). Software to shut down at user selectable battery level. Emergency Power-Off (EPO), Resettable Circuit Breakers, Field\_replaceable power distribution panel, multiple cable entry points, locking cabinet, user pluggable and hot swappable batteries. Automatic periodic self test for early detection of faults. Automatic internal by pass on fault with warning, For maintenance by pass, LCD display (output voltage/current/frequency, tattery status/capacity/backup) visible + Audible alarm

#### Batteries/Backup time

Backup-time of 30 Minutes at full load should be provided by included batteries with UPS. Option for 60 Minutes back up also be quoted. The total battery space must be specified. It must fit in the space available.

#### Other System Features

Diesel Generator compatible, Cold start capable, Built in static transfer by pass switch, multiple regulatory agency approved (UL, CE, FCC, ISO-9001/ISO 14001, EN 50091-2, EN/IEC 62040-3, IEC 61000-3-2, IEC 61000-3-3, C-tick) protection Degree IP 20.

#### Eligibility Criteria for Bidders

- (i) Only INR bids will be accepted.
- (ii) The bidder must provide verification and demonstration of all features and specifications
- (iii) The bidder must be a reputed OEM or his authorized system integrator. For that a letter of authorization from OEM specific to the tender should be enclosed.

- (iv) Spare part replacement and repair must be guaranteed within 5 days failing which a penalty @ 1% of AMC per day will be imposed. ( A Bank Guarantee of 10% of total purchase is required).
- (v) The bidder should have been solvent for the past 3 financial years, and bidder should be in profits (Documentary proof required).
- (vi) The bidder shall provide the Regn. Number of the firm alongwith CST and PAN No.
- (vii) The bidder should provide backend support commitment letter for the respective OEM specific to this tender for the Warranty and AMC Period as well as the support plan for the period thereafter for additional five years.
- (viii) Bid should be in INR only.
- (ix) Prices for all the major items (Battery, UPS, Panel etc) should be quoted separately. All (Turnkey) Prices- Software, Card, Cabling, installation, 3 Yr comprehensive warranty/Maintenance etc. should be included in the bid.
- (x) Complete bill of material to be attached with Technical Bid.
- (xi) Technical Compliance chart should be strictly attached with Bid.

IIT Delhi reserves the right to reject or accept any bid without assigning any reasons thereof.

#### Price and Payment terms

IIT Delhi is registered with DSIR, Govt of India and is therefore exempted from Excise Duty. Exemption letter for Excise duty, if required shall be issued by the Institute.

100% Payment would be released after successful installation as per IIT Norms.

#### Terms and conditions:

1. Warranty should be mentioned clearly.
2. AMC rates post warranty must be specified as %age of UPS cost (excluding battery cost)
3. Price should be inclusive of all taxes and installation charges and should be CIF New Delhi
4. Payment will be processed after successful installation as per IIT Norms.
5. Quotations not sent in separate covers for technical and commercial bids are bound to be rejected.

Your quotations in a sealed envelop should reach the office of Mr. Sandeep Arora, Room No. 404, Bharti Building, IIT Delhi Phone No. 26596008 by 10<sup>th</sup> August, 2011. Quotations received after the due date and time are bound to be rejected. The Institute reserves the right to accept or reject any quotation without assigning any reasons thereof.

(Prof. Subodh Kumar)

