

GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
INDIAN INSTITUTE OF REMOTE SENSING  
IIRS  
DEHRADUN  
PURCHASE & STORES  
INVITATION TO TENDER

Ph No: 0135 - 2524317  
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Date : 10/07/2013

M/s

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Our Ref No : GIPP 2013-000128-01

Tender Due: 15:00 Hrs ISTon 06/08/2013

Opening : 15:30 Hrs ISTon 06/08/2013

Dear Sirs,

Please submit your sealed quotation , in the Tender Form enclosed here along with the descriptive catalogues / pamphlets / literature ,superscribed with Our Ref.No. and Due Date for the supply of the following items as per the terms & conditions mentioned in Annexure( Form No: )

S.No.	Description of Items with Specifications	Unit	Quantity
1	SITC OF 2X100KVA PARALLEL REDUNDANT UPS SYSTEM AT IIRS CAMPUS, DEHRADUN AS PER SPECIFICATION ENCLOSED), MAKE: LIBERT (EMERSON), MITSUBUSHI, PILLER, EPI, MGE (APC), (SPECIFICATION & TERMS & CONDITION AS PER ANNEXURE'S ENCLOSED)	NO.	1

DELIVERY AT: IIRS

MODE OF DESPATCH DOOR DLVRY

DUTY EXEMPTIONS

SPECIAL INSTRUCTIONS AS PER ANNEXURE'S

SPECIFIC TERMS

  
PURS. & STORES OFFICER  
For and on behalf of the President of India  
The Purchaser

e/c 

**PART – I**

**Detailed Technical Specifications for 2x 100 KVA UPS system- MPR  
NO. 2013000128**

**System Description**

1. **Scope:** The UPS system consists of on- line 2 nos. of 100 KVA double conversion UPS systems fully micro processor based connected in parallel redundant load sharing mode. In the event of failure of the one UPS system, the load shall be passed on to the parallel redundant system. If the second system also fails, the load shall be automatically passed on to the by pass (normal supply) through static bypass switch without any break. Galvanic isolation to be provided for EB neutral and UPS neutral.
  
2. **System Description**

The system should consist of the following major components i)

  - i) Solid state static PWM converters utilizing IGBT.
  - ii) Solid state static PWM Inverters utilizing IGBT
  - iii) Sealed high rate discharge maintenance free valve regulated lead acid battery bank (VRLA) for 15 minutes back up time for each UPS, totaling to 30 minutes backup time at full load.
  - iv) Converter input, bypass input and system battery breaker/ contactor, inverter out put breaker/ contactor and static bypass switch with primary contactor, converter input and system input fuses etc.
  - v) Maintenance bypass utilizing wrap around contactor
  
3. **Modes of Operation:** The system should be designed to operate continuously at rated capacity in the following modes.
  - i) **Normal Operation:** The inverter shall continuously supply stable A.C power to the critical load. The converter should be able to feed power to a fully loaded inverter as well as recharging the system with fully discharged battery simultaneously if required.
  - ii) **Battery Operation:** In the event of commercial A.C failure, the inverter shall derive the input from the system battery without any break.
  - iii) **Recovery charge:** Subsequent to restoration of commercial A.C. Power and prior to the system battery final voltage, the converter shall automatically re-activate and provide D.C power to the inverter, simultaneously recharging the battery system without any interruption.
  - iv) **Bypass supply:** In the event of inverter failure, the critical load shall be transferred to the bypass source via the static switch without interruption of power to the critical load. Manual re-transfer arrangement shall be

made in the system to transfer the load from bypass to inverter without any break after attending the fault in the system.

- v) **Off – Battery:** If battery only taken out of service for maintenance, it is disconnected from the rectifier/ chargers and inverters by means of external disconnect breakers. The UPS shall continue to function and meet all of the specified steady state performance criteria, except for the power outage back-up time capability.
- vi) **Maintenance by pass operation (Super by pass):** In case of maintenance or repair has to be performed on the UPS, load shall be powered from bypass source through maintenance by pass switch. The power shall be transferred from inverter to normal bypass and Maintenance bypass or vice versa without interruption by manual operation. After transferring the load to maintenance bypass, system shall be free from all aspects i.e. switching OFF, switching ON, attending faults etc.

#### 4.0 Technical Specifications

##### 4.1. Input (Charger / Converter)

- i. Input voltage : 415V, A.C. + 15%, -25%
- ii. Input frequency : 50 HZ +/- 5%
- iii. Power walk in : 10 to 100% in 20 seconds
- iv. Power factor at rated load : 0.95
- v. Input harmonic current (THD ) : 3% typical at 100% load  
: 5% typical at 50% load

##### 4.2 Protection:

Protection provided for the rectifier:

- i. Semi-conductor fuses.
- ii. DC over/ under voltage.
- iii. Frequency Monitor.
- iv. Temperature warning Rectifier.
- v. Any other protections as per standards.

##### 4.3 D.C.Characteristics

- i) Battery type : Sealed high rate discharge maintenance free Valve Regulated Lead Acid (VRLA) with 2 years warranty from date of commissioning
- ii) Back up time : 15 Minutes for each UPS, total of 30 minutes. **Necessary battery calculation shall be submitted along with quote.**

iii) Float charge voltage	: 2.25 Volt per cell
iv) End of battery voltage	: 1.7 volts per cell
v) Voltage stability of the rectifier	: + /- 1%
vi) Ripple voltage(with battery disconnected)	: Less than 1%
vii) Battery charging cycle	: Boost/ float charging with current limit & boost time limiter
viii) Make of Battery	: Exide/ Ammararaja Panasonic/Sonnenchein Amco

**NOTE:** The AH capacity and No of batteries of the battery bank **shall be not less than 150AH and 40Nos respectively for 15minutes backup for each UPS.** However, this calculation is for reference only, the battery bank supplied by the vendor should assure for 15minutes for each UPS. The necessary battery bank calculation shall be submitted along with Technical bid by considering relevant standards/codes.

#### 4.4 Input (Bypass)

Configuration	: 3 Phase, 4 wire
Input voltage	: 415V +/- 15%
Frequency	: 50 HZ +/- 5%
Over load on bypass static switch	: 100% rated current continuous 10 times rated current for 20 milli Sec.
No break transfer	: UPS system shall have logic circuit to sense the following conditions and transfer the loads from module to bypass without break.
	a) Inverter output under voltage/over Voltage
	b) Overload beyond the Capability of the Inv.

c) D.C.Circuit under voltage or over voltage

**NOTE:** System shall have maintenance bypass switch arrangement to transfer the entire load through a make before break mechanical bypass switch for attending periodical maintenance etc. on the system

#### 4.5 Output (Inverter)

i)	Configuration	: 3 Phase, 4 wire
ii)	Output rating	: 100 KVA
iii)	Load power factor	: 0.8 lag to unity
iv)	Voltage	: 415 Volts
v)	Voltage regulation	: a) +/- 1% for balanced Load. b) +/- 1% for 50% Unbalanced load c) +/- 2% for 100 % Unbalanced load.
vii)	Manually adjustable Output Voltage:	+/-5% of nominal voltage
vi)	Frequency	: +/- 0.01 HZ with by pass Unsynchronised operation
	Synchronising range with bypass	: +/- 5%(Selectable at Various levels)
	Over load	: 110% for 60 minutes 125% for 10 minutes 150% for 1 minute
	Non linear load permissible	: 100% load with crest Factor 3
	Voltage transient fluctuation	: +/- 3% for 100% step Load change +/- 1% for loss or restoration of AC input  +/- 3% for transfer from bypass to inverter
	Voltage transient recovery	: Less than 20 milli Seconds

Voltage unbalance	: +/- 2% for unbalanced loads
Voltage Phase angle displacement	: +/- 1 Degree for balanced Loads +/- 2 Degree for unbalanced loads
Total harmonic distortion	: Less than 3% THD with 100% linear loads Less than 5% THD with 100% non-linear loads
Efficiency (Total system)	: Better than 91%
Duty Cycle	: Continuous
No Break transfer	: In the event of failure of the Loaded inverter, the System shall be able to transfer the total load on the other module which is working under Parallel redundant mode without any interruption in output supply.
Isolation	: Isolation in the neutral circuit shall be provided using Galvanic isolation transformer.

**Protections provided for inverter:**

- i. Semi-conductor protection.
- ii. Output voltage monitor.
- iii. Output frequency monitor.
- iv. DC under/ over voltage check.
- v. Any other protections as per standards.

**4.6 Environment**

- i. Operating Temperature : 0 to 40 Deg. C
- ii. Relative Humidity : 5% to 95% Maximum
- iii. Altitude : upto 1000 mtrs Sea level
- iv. Storage temperature : -20Deg.C to + 70Deg.C.

**5.0 Mimic Display.**

1. Mains available

2. Rectifier operative
3. Inverter operation
4. Battery voltage OK
5. Bypass supply OK
6. Load on bypass
7. Load on inverter
8. Fault Codes etc.

Fault events recordings with time and date and storage within the system upto a minimum no of 100 events.

## **6.0 Alarms**

- i. Inverter OFF/ failed
- ii. Rectifier OFF / failed
- iii. Emergency Stop
- iv. Over temperature  
Over load
- v. Incoming failure
- vi. Battery Low
- vii. Battery failure

## **7.0 Metering**

To select and monitoring the following through LED/ LCD display:-

- i. Output voltages in value & %.
- ii. Out Put Currents in value & %.
- iii. Out Put Frequency
- iv. Battery voltage
- v. Battery charge /discharge current

- vi. Battery backup/charge in AH & %
  - vii. Input voltage, current and frequency
- 8.0 System shall have built-in microprocessor based diagnostics and monitoring facility.
- 9.0 System shall have RS – 232 serial Port and shall be connected, along with necessary software for downloading the parameters for independent computer. System shall have built-in microprocessor/DSP monitoring as well as diagnostic analyser etc., and should be connected to a computer (computer is not in the scope of the vendor) along with software and hardware. User friendly graphical HMI to view all UPS monitoring parameters, alarms, printout facility in tabular formats for given period & parameters shall be available as part of software features. The distance between UPS room and computer room would be 200mtrs approx.
- 10.0 Fuse link protection for input and the static bypass switches
- 11.0 UPS cabinet shall be composed of a free standing steel type enclosure complying with IP 20.
- 12.0 Cable entry should be from the bottom of the cabinet
- 13.0 Inter Cell connectors should be of lead coated Copper Strip and all links should carry maximum discharge current when UPS is on full load.
- 14.0 A powder coated standard battery cabinet with sufficient ventilation shall be provided to house the batteries.
- 15.0 Each UPS module shall have a properly rated circuit breaker to isolate from the battery. This breaker is to be provided in a separate enclosure. When open, there shall be no battery voltage in the UPS enclosure. Each UPS module shall automatically be disconnected from the battery by opening its breaker when the battery reaches the minimum discharge voltage level or when signaled by the other control functions. The operation of this battery circuit breaker also to be monitored and annunciated.
- 16.0 The power supply will be given at One source with in 5 meters from the unit and the power distribution with proper size cabling as approved by Department to be laid & conducting & cabling in the scope of the supplier . All cables shall be multi stranded copper cables.
- 17.0 The output from the UPS to be given by the supplier with necessary cabling with switches at one point( with in 5 M from the UPS unit) and the cabling is in the scope of the supplier after getting due approval for the cable and switch size from Department. All cables shall be multi stranded copper cables.



- 18.0 Load testing for the UPS is to be arranged at site with full load as required for the units after interconnecting all the system with batteries etc complete as required and all the parameters and back up to be tested.
- 19.0 Remote Monitoring annunciation Panel to monitor 6 important parameters of UPS and shielded cable of 100mtrs length is to be provided.
- 20.0 The firm shall provide the “**Comprehensive AMC**” for 5 year period from the date of expiry of the warranty period. The AMC shall include all components supplied under the scope of the Tenderer, except the replacement of batteries. The Comprehensive AMC quote also will be considered for deciding the lowest tenderer.
- 21.0 However the upkeep maintenance, monitoring of battery bank is inclusive in the AMC. Terms & conditions for comprehensive AMC are enclosed in Annexure – I. Quotation/Tender without AMC rate shall be summarily rejected.
- 22.0 **WARRANTY:** System supplied shall be covered for a minimum warranty period of 24 months from the date of commissioning of the unit at site for trouble free and satisfactory performance.
- 23.0 **INSTALLATION, COMMISSIONING & DOCUMENTATION:**  
UPS systems, Battery banks and associated auxiliary systems shall be installed as per manufacturer’s guidance and as per standard practice and as per the requirements of site.
- 24.0 After satisfactory installation and pre-commissioning tests, the UPS may be commissioned. The following documents each 3 copies are to be provided for the UPS system, Battery and other accessories.
- 1) Operation & Maintenance instruction manual.
  - 2) Service manual with detailed power and control wiring diagram,
  - 3) Circuit diagram of PCB's with component details.
  - 4) List of power and control devices used in the system with complete specifications and characteristics
  - 5) As-built control wiring diagram
  - 6) Routine and type and commissioning test reports.
  - 7) Soft ware with Licence for interfacing to remote PC.
  - 8) Other relevant documents.
- 25.0 **TRAINING:** The bidder shall arrange free of cost training to our Department Engineers at site for not more than 2 days at our site.
- 26.0 **INSPECTION & TESTING:**
- i) Necessary routine tests shall be conducted in the presence of HCMD IIRS or his representatives.

- ii) All the factory test data reports shall be submitted for scrutiny well in advance to obtain the dispatch clearance.
- i) The vendors shall arrange for the testing of the system at his factory/ testing facility along with all documents etc.,
- iv) Commissioning tests to demonstrate the features and control functions of the UPS along with battery bank at site to be carried out by the supplier, in the presence of HCMD, IIRS or his representatives.

**27.0 Point by point Check list/technical specifications:**

Check List as enclosed in Annexure – II should be submitted along with techno commercial offer, failing which offer will be rejected. All items in the check list should be answered.

Any deviation from technical specification should be **clearly brought** out in technical deviation statement / Check list, The bidder must quote separately any optional items and attachments which are not covered in the tender specifications, but considered essential by them for their system.

**28.0 Signature with seal:**

All pages of this tender document including Part – I & II shall signed with seal by the authorized signatory of the vendor firm.



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NO.4, KALIDAS ROAD, POST BOX NO.135,  
DEHRADUN-248001  
PHONE : 252 4317 / 4318, FAX : 0135 - 2748041 / 2741987**

**Terms and Conditions for AMC of 2 x100 KVA Paralled redundant UPS System**

1. The comprehensive Maintenance contract shall be in respect of UPS System with complete configuration and associated battery bank. Battery replacement is not covered under the scope of Agency.
2. Regular preventive Maintenance of the system shall be carried out by the agency and reports shall be submitted as advised by Head CMD.
3. Tools and test equipment required for diagnosing and repair under this comprehensive Maintenance should be brought by the agency at his cost.
4. A consolidated report on problem reported on the system and corrective measures taken shall be submitted by agency to Head, CMD. Qualified and trained engineers should attend to the servicing and failure of UPS system.
5. Annual comprehensive service Maintenance contract include servicing, repairing, preventive Maintenance and also include of repairs and or replacement of all faulty components, except replacement of Batteries.
6. Payment will be made within 30 days from the date of receipt of the bill on quarterly basis after satisfactory completion of each quarter and against satisfactory certification by Head CMD on the bill. No. advance payment will be made in any circumstance.
7. The rates quoted and accepted by department shall be valid for a period of minimum of five years.
8. IIRS reserves the right to terminate the contract at any time for any part of the contract and /or period without assigning any reason, if the services are not found to be satisfactory or if it is felt that such services are not required.
9. All complaints, breakdown of these systems shall be attended by the agency within 24 hrs and rectified within 48 hrs from the time of complaint lodged to you. Suitable penalty at the **discretion** of the department will be levied for delay in rectification beyond above stipulated period.

Maintenance of System

1. Physical cleaning and firm contact of Batteries shall be ensured

2. Checking of output wave forms for Harmonic distortion once in every quarter and necessary action, if required to be taken, for getting the smooth sine wave.
3. Recording of all the parameters like output voltage, load current, % Harmonic distortions, P.F, Frequency, KVA, KW etc, using a portable load manager on quarterly basis and report to be submitted to Head, CMD.
4. Cleaning of all the system using vacuum cleaners etc., and keeping the UPS system dust free.
5. As directed by Head, CMD , the agency shall always keep the stock of the required spare and consumables at site in order to avoid any delay in attending complaints.
6. All necessary tools, tackles, meters, oscilloscope etc., required for Maintenance of UPS system should be brought by the agency as required and directed by Head, CMD.
7. Agency shall also regularly monitor the input power supply, earthing etc. related to UPS System to ensure healthy functioning and best quality of UPS output Power always.
8. Checking the voltage between neutral to earth and load balancing of the systems shall be done regularly and report to Head, CMD.
9. Checklists, for each system shall be provided by the agency and checking shall be carried accordingly at the given intervals.
10. The AMC can be extended for a further period on satisfactory performance and with mutually agreed terms and condition.



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**NO. IIRS/P&S MPR-2013000128/PT-1/ SUPPLY & INSTALLATION OF 2X100 KVA UPS SYSTEM**

**Technical Particulars/Compliance to be submitted by Vendor /**

		<b>Indent Specification</b>	<b>Vendor</b>	<b>Details/Remarks</b>
<b>Make /Model of 2X100 KVA UPS Offered</b>		To be specified by vendor		
<b>Authorization letter from principle supplier for supply &amp; service of UPS</b>		To be submitted by vendor for reference		
<b>A. INPUT( Charger/Converter)</b>				
Rectifier		IGBT based		
rated voltage	V	415V,AC,+15%,-25%, adjustable, 3 ph. 4 w		
voltage tolerance	%	+ 15%,-25%		
rated frequency	Hz	50		
frequency tolerance	%	+/-5%		
power factor at rated load		<b>0.95</b>		
total harmonic distortion (input current)	%	<3%at100%load&<5% at 50% load		
<b>Protections</b>				
		Semi conductor fuses		
		DC over/ under voltage		
		Frequency monitor		
		Temperature warning Rectifier		
		Any other protections as per		
<b>B. Output (Inverter)</b>				
Inverter type		IGBT based		
Maximum power	<b>KVA</b>	100 (Typical)		
rated power factor		0.8 lag to unity.		
rated voltage	V	380/400/415 adjustable, 3ph,4W		

voltage regulation	%	+/-1% for balanced load		
		+/-1% for 50 % unbalanced load		
		+/-2% for 100% unbalanced loads.		
Manually adjustable output voltage	%	5% of nominal voltage		
rated frequency	HZ	50 with (+/-) .01 HZ bypass un synchronised operation		
Synchronising range with By-pass(frequency)	HZ	(+/-) 5% selectable at various levels		
Over load	%	110% for 60 Minutes 125% for 10 minutes 150% for 1 minute		
Non-linear load permissible		100% load with crest factor 3		
Voltage transient fluctuation	%	(+/-) 3% for 100% step load change. (+/-)1% for loss or restoration for Ac input.(+/-)3% for transfer from bypass to inverter.		
Voltage transient recovery	sec	Less than 20Milli seconds		
Voltage unbalance	%	(+/-)2% for unbalanced loads		
Voltage Phase angle displacement	Degree	(+/-)1 degree for balanced loads & (+/-)2 degree for unbalanced loads		
total harmonic distortion	%	Less than 3% THD with 100% linear loads. & Less than 5% THD with 100% non-Linear loads.		
Efficiency(total System)	%	Better than 91%		
Duty cycle		Continuous		
No break transfer		in the event of failure of the loaded inverter, the system shall be able to transfer the total load on the other module which is working under parallel redundant by mode without interruption.		
Protections		a) Semi-conductor protection, b) output voltage monitor c) DC under/ over voltage check. d) output frequency monitor, e) Any other protections as per standards.		

C.) Mode of Isolation for EB Neutral & UPS neutral	a) Mode of isolation Between EB neutral & UPS neutral to be specified .If isolation transformer is used complete technical details of Isolation transformer to be submitted		
	b) Number of isolation transformers proposed.		
Warranty of the system as total	Two years		
D. D. C Characteristics			
Battery Type	Sealed high rate discharge maintenance free Valve Regulated Lead ACID(VRLA)		
warranty	Two Years		
Back up time	Total 30Minutes. <b>Necessary</b> battery calculation shall be submitted with Quote.		
Float charge voltage	2.25volt per cell		
End of battery voltage	1.7 Volt per cell		
Voltage stability of the rectifier	(+/-)1%		
Ripple Voltage( with battery Disconnected)	Less than 1%		
battery Charging cycle	Boost/ float charging with current limit & boost time limiter		
<b>E. Environment</b>			
Operating Temperature	0 to 40 Deg C		
Relative Humidity	5% to 95% Maximum		
Altitude	up to 1000Mtrs sea		
Storage temperature	(-)20Deg.Cto + 70Deg.C		
<b>F. Mimic Display_ •</b>			
Facilitate for following	Mains Available,Rectifier Operative, Inverter Operation,Battery Voltage Ok, By pass supply Ok,load on Bypass, Load <b>on</b> Inverter.		
Faults Events display	Faults events recordings with time and date.		

<b>G. Alarms</b>				
Facilitate for following		Inverter OFF/failed, Rectifier OFF/failed, Emergency Stop, Over temperature, Over load, incoming failure, Battery failure.		
<b>H. Metering</b>				
Facilitate for following through LED/LCD display		Out put voltage, Out put current, out put frequency, battery voltage, battery charge/discharge current, input voltage, current & frequency.		
<b>I. Communication</b>				
communication Port		System shall have Rs-232 serial port for down loading the parameters for independent computer & for interfacing with PC		
Faults annuciation & alarm at remote location		Out <b>terminals are to be</b> provided in the UPS for faults annuciation & alarm at remote location. Like Ac incoming failure, UPS out put failure, Battery voltage failure, UPS out on By pass.		
<b>J. Cabling</b>				
Cabling for battery to UPS units & UPS units to out put/input switch		Scope of work includes Supply of proper size copper cable with conduits for interlinking UPS and battery & UPS input switch & out put switch from UPS units		
<b>K. General</b>				
Specify list of relevant technical enclosures		Enclose technical enclosures		
Deviations if any		Yes/No if any		
Delivery period				
Maximum warranty period		Months from the date of		
AMC Comprehensive/Non comprehensive charges per annum for 5 years on completion of Warranty		To be quoted		



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ANNEXURE-II

**PART – II**

**PRICE BID FOR 2x 100 KVA PARALLEL REDUNDANT UPS SYSTEM- MPR NO.  
2013000128-PT-1**

**2 x 100 KVA Parallel Redundant UPS system:**

**Scope of Work:** Supply, installation, testing and commissioning of 2x 100 KVA Parallel redundant UPS system, Battery Bank etc and providing Comprehensive AMC service for a period of 5 (Five) years after warranty period at IIRS, Dehradun as per the enclosed technical and other specifications in part – I of tender document.

The prices and taxes shall be quoted as per the enclosed price bid format only.

**Encl:**

**1. Price Bid Format**

**Note:** Copy of un priced price bid shall be enclosed to the technical bid i.e., Part – I.



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ANNEXURE-II

**PART - II**

**PRICE BID FORMAAT FOR 2x 100 KVA PARALLEL REDUNDANT UPS system- MPR NO. 2013000128-PT-1**

Supply, installation, testing and commissioning of 2 x 100 KVA Parallel Redundant UPS system, Battery Bank etc. and providing Comprehensive AMC service for a period of 5 (Five) years after warranty period at IIRS, Dehradun as per the technical specifications.

Sl.	Item	Qty.	Rate	Unit	Amount
01	2 x 100 KVA Parallel redundant UPS including 2Nos of Galvanic Insolation Transformer (external/ internal)	1 set		set	
02	12 V,SMF VRLA, Battery Bank with Circuit breaker and with Battery Stand for 100 KVA UPS ( Total Two battery banks)	Two Banks		Per Bank	
03	Single core Nyvin Copper cables for interconnection of input panel, Modules, output panel, Battery banks etc.,	Per M		M	
04	Any other accessories for completing the scope including interconnection cables etc				
	Discount if any				
	Duties				
	Sales Tax / VAT if applicable				
	Packing and Forwarding				
	Freight charges				
	Any other charges				
<b>A</b>	<b>Total for Supply in Rupees</b>				
	Installation Charges including cable laying and interconnection.				
01	i) 2 x 100 KVA Parallel Redundant UPS including Galvanic Isolation Transformer	1 set		Set	
02	ii) 12 V,SMF VRLA, Battery Bank	Two banks		Bank	
03	iii) Laying of copper cables	M			
04	vii) Installation of any other accessories for completing the scope.				
05	Testing & commissioning of whole system	1 job		job	
	Service Tax if any				
	Any other charges				
<b>B</b>	<b>Total installation &amp; commissioning Charges in Rupees</b>				
<b>C</b>	<b>Total (A+B) in Rupees ( Supply, Installation and commissioning)</b>				
<b>D</b>	Comprehensive AMC charges for 05 years after warranty period. Furnish year wise charges and service tax in Rupees				
	First Year				
	Second Year				
	Third Year				
	Fourth Year				
	Fifth Year				
	<b>Total of D</b>				
<b>E</b>	<b>Total (C+D) in Rupees</b>				

Authorized Signatory

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DEPT. OF SPACE, GOVT. OF INDIA  
INDIAN SPACE RESEARCH ORGANISATION  
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PURCHASE DEPARTMENT

NO.IIRS/P&S/GIRS-2013-00012801/PT-1

Date : 8.07.2013

SPECIAL TERMS AND CONDITIONS FOR SUBMITTING TWO PART BID

1. This is a two part tender viz., Technical Bid (consisting of Technical Specifications etc.) and Commercial Bid (Consisting of Price). Hence, quotation should be submitted in separate sealed covers super-scribing "Tender No. **GIRS-2013-00012801/(2013-14)** due on 06.08.2013 at 1500 hrs (Technical Bid) and Tender No. **GIRS-2013-00012801(2013-14) due on 06/8/2013 (Commercial Bid)**. Only technical bid will be opened on the date of tender opening. The Commercial Bids of those tenderers whose technical bids are found to be meeting our specifications/ requirements will be opened in the presence of attending tenderers at a date and time to be notified later.
2. The technical bid should have only technical details. **No price should be quoted in the technical bid.**
3. Tenderers can download the tender documents from web site ([www.iirs.gov.in](http://www.iirs.gov.in)). When tender form is downloaded DD for Rs. 227/- drawn in favour of Pay & Accounts Officer , IIRS payable at Dehradun shall be attached alogwith the technical bids
4. Commercial Bid should have the cost details and other statutory levies only.
5. Both the sealed tenders (Technical & Commercial) should be kept in one big cover super scribing TENDER for Supply & Installation , Testing & Commissioning of 2x100 KVA parallel Redundant UPS System against MPR No. **GIRS-2013-00012801/(2013-14) due on 06.08.2013 at 1500 hrs and Commercial Bid against enquiry No. GIRS-2013-00012801/(2013-14) due on 06/8/2013.** and kept in the Tender Box available in Purchase Division, IIRS or can be sent by post within the due date and time, prescribed.
6. Late & Delayed Tenders will not be accepted.
7. EMD of Rs. 1,00,000/- to be submitted along with the quotation in the form of Crossed Demand Draft drawn on any scheduled bank in favour of Pay & Accounts Officer, IIRS, payable at Dehradun. Quotation received without EMD will not be considered. The EMD of unsuccessful bidder will be released after finalization of order.

  
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DEPARTMENT OF SPACE  
INDIAN SPACE RESEARCH ORGANISATION  
INDIAN INSTITUTE OF REMOTE SENSING  
4 KALIDAS ROAD, POST BOX NO.135  
DEHRA DUN

Annexure-IV

GENERAL TERMS & CONDITION OF GIRS: 2013-00012801/PT-01

1. Last date for submission of quotation is 06.8.2013 ( both technical as well as commercial ) technical bid will be opened on 06 -8-2013 at 15300 hrs
2. Specifications: Item should be offered strictly confirming to our specifications. The deviation in specifications, if any shall be clearly indicated in the quotation. The make/type number of the materials offered should be indicated in the quotation.
3. Terms & Condition: Quotation should be submitted on F.O.R Destination price including transit insurance. Preference will be given to such quotations. For quotation Ex-Works, Ex-Go down/F.O.R Dispatching station, the approximate packing, forwarding charges and freight should be indicated by the supplier.
4. Validity: The quotation should be valid for a minimum period of 90 days from the date of opening
5. VAT/Sales Tax: Please clearly indicate taxes if any applicable with documentary proof, if applicable, clearly mention percentage of tax without fail. Please do not mention " Taxes Extra " or " Applicable" We will not provide "D" or "C" form
6. Delivery Period: Specific delivery period should be specified in your quote. If item ordered are not delivered within the stipulated delivery period, Liquidated Damages will be levied @ 0.5% per week or part of a week subject to a maximum of 10% of the total value of item delivered after expiry of delivery period.
7. Payment: 1) 90% payment after satisfactory installation /commissioning and balance 10% after warranty or on production of performance bank guarantee for the said amount
8. Warranty: Warranty period should be minimum 2 years from date of Commissioning of the UPS System
9. Director, IIRS reserve the right to accept or reject any quotation in full or part thereof without assigning any reasons.

  
Purchase & Stores Officer