## Indian Institute of Technology, Delhi Centre for Energy Studies

## **NOTICE: INVITING QUOTATION**

Date: 11.10.2013

Due date: 28.10.2013

Sealed quotations are invited for an item "Natural Gas Fuelled MultiCylinder Spark Ignition Genset". The quotations for the item should be submitted in a sealed cover (separate bids: technical and commercial) to Dr.K.A.Subramanian, Associate Professor, Room No.414, Block V, Centre for Energy Studies, Indian Institute of Technology Delhi, HauzKhas, New Delhi-110016 on or before 28.10.2013 (Monday). The late submission will not be entrained. The detailed technical specifications of the item are given below;

Spark Ignition Engine Specifications			
S.No.	Parameter	Description	
1	Type of engine	Spark Ignition Internal Combustion Engine	
2	Engine capacity (Swept volume)	4 - 5Liters	
3	Rated power output range	45 - 50bhp	
4	Rated speed	1500 rpm (constant speed)	
5	Number of cylinders	4	
6	Compression ratio	12:1	
7	Fuel option	Compressed natural gas (Dedicated fuel)	
8	Governing system	Electronic	
9	Aspiration type (Air intake)	Natural aspiration	
10	Cooling system	Water cooled	
11	Type of engine start	Battery start	
12	Emission norms	CPCB compliance	
13	Lube Oil Sump Capacity	9 - 10Liters	
Alternator Specifications			
13	Alternator type	4 pole brushless	
14	Alternator power (Rated)	35-40 kVA	
15	Frequency	50 Hz	

16	Power factor	0.8	
17	Voltage	415-420 V	
18	Phase	Three phase	
19	Generator set type	Canopy	
20	Voltage Regulation	≤1.5 %	
21	Range of Voltage adjustment	≤ 5 %	
22	Method of Starting	Battery (12 V) start	
Import	Genset should be equipped with a control panel including digital display of different		
ant	operating parameters such as Voltage, Current, Power, Speed and total number of		
Note:	running hours. The item also should be equipped with safety mechanisms including		
	warning signals and alarms.		
	Accessories:All necessary accessories including spanner set, spares, filters etc. should		
	be supplied.		
	TheGenset(brand new) comprising of all components must be supplied by one supplier		
	only. The complete generator set which is assembled by the original engine		
	manufacturer (OEM) should be supplied by the authorized distributor/dealer of the		
	manufacturer. The genset assembled by other than the engine manufacturer will not be		
	considered for purchase process in IIT Delhi.		

## Terms and conditions covering submission of quotations

1. Please submit the TECHNICAL and FINANCIAL bids in two separate sealed envelopes. Mark clearly as "Technical Bid" and "Financial Bid" on the respective envelops. Both the sealed envelopes should be sent in a single sealed envelope, with clearly marked as "Quotation for "Natural Gas Fuelled Multi Cylinder Spark Ignition Genset". The quote should reach the following address on or before 28.10.2013 (5:30 PM).

Name: Dr. K. A. Subramanian

Address: Room No. 414, Block V, Centre for Energy Studies, Indian Institute of Technology Delhi, HauzKhas, New Delhi-110016

2. Please quote prices of imported items preferably at FOB (Freight on Board) IIT Delhi inclusive of all taxes, freight, delivery, installation and onsite training charges. The

- quotation should provide the total price of the system including all taxes and transportation charges.
- 3. Quote should be in Indian Rupees and to be valid for at least three months.
- 4. A complete set of spares and consumables should be supplied for three years of trouble free operation.
- 5. Attach all the technical literature/ manual and a list of similar installations done in India.
- 6. Warranty: Minimum 2 Year standard warranty.
- 7. Company authorized distributorship/dealership certificate should be provided.
- 8. If the items quoted are proprietary in nature, please enclose proprietary certificate from the principals stating "certified that \_\_\_\_\_\_ is a proprietary item of M/s. \_\_\_\_\_ and no other manufacture make these items."
- 9. If the quote is being submitted by the representative of the principals/manufactures themselves, a valid Agency ship/Dealership Certificate authorizing the agent to quote to IIT Delhi on behalf of the Principals should be enclosed.
- 10. Complete set of manuals for the operation and servicing of equipment should be given.

  All circuit diagrams, other mechanical and electrical schematics must be provided to main unit, sub systems and accessories.
- 11. Clearly specify the installation requirement such as space, power, frequency, environment (Temperature and humidity), etc.
- 12. If the bidder is Indian agent, the agency certificate should be enclosed.
- 13. Please produce compliance certificate for the specification.
- 14. Delivery period: Within 1 month from the issue of supply order.
- 15. Authority of IIT Delhi reserves the right to reject any or all quotations without assigning any reasons.
- 16. Validity of quotations: Quotations will be considered valid for 3 months from the date of receipt unless otherwise stated.
- 17. Correspondence: No correspondence regarding acceptance or rejection of a quotation will be entertained.
- 18. Method of submission:Quotations should be sent in a sealed cover, indicating of OUR N.I.Q. REFERENCE NUMBER AND DUE DATE FOR OPENING asotherwise these will not be considered.

The envelope must contain two SEPARATE bids:

- (i) Commercial bid
- (ii) Technical bid
- 19. Rejection: The quotation not conforming to the set procedures mentioned above will be rejected.
- 20. Discount/Rebates: Special discount/rebate wherever admissible keeping in view that the items are being supplied to an Educational Institution of National importance may be indicated.
- 21. Excise duty (ED) exemption certificate will be provided by IIT Delhi.

Prof. M.G.Dastidar Chairman Dr. K.A. Subramanian Member Dr. Vamsi Krishna Member Dr.AshuVerma Member