



BANARAS HINDU UNIVERSITY

VARANASI-221005

NOTICE

Banaras Hindu University invites sealed quotation for **Diesel Generator Set – 750 KVA (600 KW)**. Interested manufacturers may either directly or through their authorized dealer submit their quotation. *(In case of authorized dealer a valid authorization from manufacturer is required, failing which quotation of the authorized dealer will be summarily rejected)*. Tender Document may be had from the office of the **Dy. Registrar – Purchase, Central Purchase Organization, Banaras Hindu University, Varanasi**. against a D/D of Rs.500/- drawn in favour of **Registrar, BHU** Payable at Varanasi. It can be downloaded from the website, however in that case, cost of Tender Form may be enclosed in form of Demand Draft for Rs.500/-, while submitting the complete tender document. For further detail please visit B.H.U. website www.bhu.ac.in

LAST DATE OF SUBMISSION OF COMPLETE TENDER DOCUMENT – 20.04.2010 upto 4.00 pm

DEPUTY REGISTRAR (PURCHASE)



काशी हिन्दू विश्वविद्यालय
वाराणसी-२२१००५

निविदा

काशी हिन्दू विश्वविद्यालय डीजल जेनरेटर सेट – 750 के.वि.ए. (600 कि.वा.) के साथ, हेतु मुहरबन्द कोटेशन निर्माताओं या निर्माताओं द्वारा अधिकृत डीलरों से आमंत्रित की जाती है (अधिकृत डीलर द्वारा निविदा जमा करने की स्थिति में इस आषय का अद्यत्न प्रमाण पत्र निविदा के साथ संलग्न करना अनिवार्य होगा अन्यथा अस्वीकृत कर दी जाएगी)

इच्छुक निर्माता/अधिकृत डीलर विस्तृत विवरण, नियम व शर्तें एवं निविदा प्रपत्र उप शकुलसचिव, कय अनुभाग, का0हि0वि0वि0 वाराणसी ३ के कार्यालय से 500६ के डिमाण्ड डाफ्ट जो कुलसचिव, का0हि0वि0वि0 वाराणसी के पक्ष में देय हो, के माध्यम से अथवा वेबसाइट से डाउनलोड करके प्राप्त कर सकते हैं डाउनलोड करने की स्थिति में निविदा प्रपत्र का मूल्य 500६ डिमाण्ड डाफ्ट के रुप में लगाना अनिवार्य होगा। निविदा से सम्बंधित विस्तृत विवरण एवमं निविदा प्रपत्र विश्वविद्यालय वेबसाइट www.bhu.ac.in पर उपलब्ध है ।

परिपूर्ण निविदा जमा करने की अन्तिम तिथि – 20०4०2010 सायं 4०0 बजे तक है।

उप कुलसचिव ;कयद्व

DETAILS OF ITEMS FOR TENDER

Supplying, Installation, Testing and commission of one no. 600 KW (750 KVA), Diesel Generating set, complete with all accessories including training of staff on operation and Annual Maintenance after expiry of warranty at SS Hospital.

REQUISITE FEE

Cost of Tender Form	:	Rs. 500/-
Tender Processing Fee (T.P.F.) <i>(Non refundable)</i>	:	Rs. 5,000/-
Earnest Money Deposit (E.M.D.) <i>(Refundable)</i>	:	Rs. 25, 000/-
Bank Guarantee	:	10% of the order value

(To be submitted by firm to whom order will be placed)

1. Tender should be submitted in three parts: 1st for Technical bid. 2nd for Financial bid. & 3rd for Earnest Money Deposit in three separate sealed envelop, which should be kept together in one envelop.
2. Tender for Technical bid will be opened first.
3. Financial bid of successful bidder in technical bid will only be opened after evaluation of technical bid.
4. Earnest money deposit and non-refundable tender processing fee are to be submitted separately through D/D in favor of the Registrar, BHU payable at Varanasi. It should not be clubbed otherwise the tender is Liable to be rejected.
5. Tenders received without Earnest Money and Tender Processing Fee will be summarily rejected.
6. Tender should be submitted only by Registered Post / Speed Post.
7. Bidders must ensure training of staff involve in operating the DG Set.
8. After warranty of DG Set, rate of AMC/ FSMC be also quoted.
9. Total Financial involvement for supply of DG Set be quoted specifically towards the end of financial bid.



BANARAS HINDU UNIVERSITY

CENTRAL PURCHASE ORGANIZATION

VARANASI – 221 005

Fax: 0542 – 2368415 Phone: 0542 – 2307247, 0542 – 2366865, mail:bhupurchase@gmail.com

IMPORTANT INSTRUCTIONS / NOTES

PLEASE GO THROUGH THE FOLLOWING INSTRUCTIONS / NOTES CAREFULLY
OTHERWISE YOUR QUOTATION IS LIABLE TO BE REJECTED

LAST DATE OF SUBMISSION OF THE OFFERS:

The offer should be addressed to the **Dy. Registrar – Purchase, Central Purchase Organization, Banaras Hindu University, Varanasi** in a sealed cover clearly super scribed with “**Tender Enquiry for DG Set 750 KVA (600 KW) with Accessories etc.**” on the face of the envelope and submitted on or before **08/02/2010** Any offer received after the last date shall not be entertained.

The following undertaking for checklist duly signed with seal and the required documents should be submitted along with offer:

UNDERTAKING FOR CHECK LIST

- i. Printed copies of the **Catalogue/Price List** of the products.
- ii. Attested photocopy of current manufacturing license, if available, issued by competent authority.
- iii. List of organizations where the firm is on rate contract or has been supplying the items, along with their performance certificates if available and attested photocopies of rate contracts.
- iv. The enclosed certificates and proforma duly filled in and signed.
- v. Documentary evidence for the turnover of last three years along with copy of the audited balance sheet.
- vi. Demand draft of Rs. 500/- (If Tender form has been downloaded from website in favour of “Registrar, BHU”)
- vii. Demand Draft of Rs. 5,000/- (Tender Processing fee in favour of “Registrar, BHU”)
- viii. An Earnest Money Deposit (EMD) to be submitted along with the offer in form of an account payee Bank Draft for Rs. 25,000/- in favour of “Registrar, BHU”
- ix. Registration Certificate of Central Excise
- x. Registration Certificate of C.S.T. and other Taxes of State Govts.
- xi. Copy of income Tax return for the 3 years of both the Manufacturer / authorized dealer.
- xii. Copy of Sales Tax assessment for the last 3 years the Manufacturer / authorized dealer.
- xiii. Registration in SSI / DI in case of manufacturer.
- xiv. Undertaking for Quality Control System – Copy of certificate pertaining to ISO, BIS etc.

Every page of the tender documents and the enclosed copies of the certificates should be signed with seal. In the absence of any of the above documents / information's, the offer may be summarily rejected without making any further reference.

Date:

Signature with seal



BANARAS HINDU UNIVERSITY
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VARANASI – 221 005

Fax: 0542 – 2368415 Phone: 0542 – 2307247, 0542 – 2366865, mail: bhupurchase@gmail.com

**TO BE RETURNED
WITH QUOTATION**

*Following proforma should be filled in and duly signed by the firm and sent along with the quotation.
(Please refer to the detailed instructions/notes before filling this proforma).*

1. Validity of the offer :
2. Approximate Delivery Period :
3. (a) Whether rates have been quoted F.O.R. site and covers packing forwarding and insurance charges. : YES / NO
(b) If not, please mention the same :
4. (a) Whether the prices are inclusive of Sales Tax/VAT & other taxes. : YES / NO
(b) If not, kindly specify the amount / rate :
5. If the Sales Tax/VAT is charged extra, declaration for Charging Sales Tax Correctly, attached. : YES / NO
6. (a) Whether supply will be made directly or through any Local / Regional / Authorized Dealer / Stockiest : Directly / Stockiest / Authorized Dealer
(b) If through a Stockiest / Dealer: -
 - (i) Name and full address of the Party :
 - (ii) Whether the order to be placed with the : Principal / Stockiest / Dealer
 - (iii) Who will raise the bill : Principal / Stockiest / Dealer
 - (iv) Cheques will be drawn in favour of : Principal / Stockiest / Dealer
 - (v) Whether any Delivery, Packing and Forwarding Charges will be payable to local Stockiest/Dealer : YES / NO
(Please specify the amount/percentage etc.)
7. Our terms of payment (Please indicate your preference By a (✓) mark) Please note that no other payment terms are likely to be accepted.
 - (a) **For Local Firms or if the bills are raised by the Local Dealers.**
 - (i) 100% Payment on bill basis :
 - OR**
 - (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report. :
(Only under exceptional cases)
 - (b) **If the bill are raised by outstation Firms**
 - (i) 100% Payment on bill basis :
 - OR**
 - (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report :

- OR**
- (iii) D.G.S. & D. Terms of Payment for D.G.S. & D Rate Contract items :
- OR**
- (iv) 75% against Proforma Invoice (at site) or documents through Bank and 25% after receipt of materials in good condition, installation and satisfactory report. :
- OR**
- (v) 90% payment against Proforma Invoice (at site) or documents through bank and 10% after receipt of materials in good condition, installation and satisfactory report (Only under special Circumstances). :
8. Whether any Excise Duty is payable on the items. : YES / NO
 If yes, indicate the amount / percentage. :%
 (Please note that excise duty shall be paid only when it is clearly shown in the invoice separately
9. Whether any installation charges are payable extra. : YES / NO
 If yes, amount to be specified (with detail). :
10. Whether any discount for educational institution offered on the printed price list of the manufacturer. : YES / NO
 If yes, mention the amount / percentage. :%
11. Whether the product is on DGS & D/D.I. Rate contract. : YES / NO
 If yes, please enclose a photocopy of the same.
12. Whether the product bears I.S.I. Mark. : YES / NO
 If yes, please mention the I.S.I. License no. :
13. (a) Whether the firm is Sales Tax payer. : YES / NO
 If yes, please mention the Sales Tax Numbers. :
- (b) Whether the Local Dealer(s) is / are Sales Tax payer(s) : YES / NO
 If yes, please mention the Sales Tax numbers of each :
14. Whether certificate of Quality Control enclosed YES/ NO
15. Whether printed / authenticated price list of the Firm's Products and Catalogue etc. enclosed. : YES / NO

Signature with Seal.

**TO BE RETURNED
ALONG WITH THE OFFER**

CERTIFICATES

WE CERTIFY THAT:

1. We will not sell the product (s) to other institutions, bodies and also in the market on the rates less than the prices quoted by us to the University.
2. The goods on which Sales Tax has been charged are not exempted for payment of Sales Tax under C.S.T. Act or U.P.S.T. Act or the rules made there under and the amount mentioned on account of Sales Tax on goods is not more than what is payable under the provisions of the relevant Act or Rules made there under.
3. The rate of Excise Duty mentioned in the quotation is in accordance with the provisions of the rules in all respects and the same is payable to the Excise Authorities in respect of the stores.
4. The goods / Stores / articles offered shall be of the best quality and workmanship and their supply be strictly in accordance with the technical specifications and particulars as detailed in the quotation and also certificate of quality control system attached.
5. The information furnished by us in the quotation are true and correct to the best of our knowledge and belief.
6. We have read and understood the rules, regulations, terms and conditions of rate contract as applicable from time to time and agree to abide by them.

Authorized Signatory
(Seal)

IMPORTANT INSTRUCTION FOR THE TENDERER

Your sealed offer should reach the office of Dy. Registrar – Purchase, Central Purchase Organization, BHU Varanasi **by Registered Post / Speed Post /dropped on the Tender drop box & by hand.** Any offer received after the last date shall not be entertained. The following documents should also be submitted along with the offer: -

Two printed copies of the **Catalogue/Price List** enclosed.

1. (a Soft Copy may also be provided) of the products enclosed.
2. **Attested photocopies of the following documents:**
 - a. Manufacturing license issued by the competent authority for each items separately
 - b. Registration Certificate of Central Excise.
 - c. Registration Certificate of Central Sales Tax & Provincial Trade Tax.
 - d. Copy of Income Tax return for the last 3 year of manufacturer/Authorized dealer
 - e. Copy of Sales Tax Assessment for the last 3 year of manufacturer/Authorized dealer
 - f. Registration in S.S.I. / D.I. in case of manufacturer.
 - g. Undertaking for Quality Control System
3. List of organizations, Research Laboratories & Educational Institutes where the firm is on rate contract or has been supplying the items, along with their performance certificates and attested photocopies of rate contracts.
4. The enclosed **certificates and proforma must be returned in original** duly filled in and signed (***Photocopy will not be accepted***) failing which quotation may not be considered.
5. Please do submit the photocopies of rate contract / supplying the item you had during the last five years.
6. The Bidders must agree for immediate free replacement in case any discrepancy is found with regard to quality/quantity of the material to be supplied by them.

In the absence of any of the above documents / information, the offer may be summarily rejected without making any further reference to you in this regard.

DETAIL INFORMATION IN RESPECT OF LOCAL DEALER

Sl. No.	Name & Address with Phone No.	C.S.T. No.	U.P.T.T. / V.A.T. No.	TIN No.	PAN No
1.					
2.					

TECHNICAL SPECIFICATION OF 600 KW (750 KVA) DG SET & ACCESSORIES

DETAIL OF WORK

Supplying, installation, testing and commission of one no. 600 KW (750 KVA), Diesel generating set, complete with all accessories including training of staff on operation and Annual Maintenance after expiry of warranty at SS Hospital BHU Varanasi. The supplier may study the requirement stipulated in the specification and also to suit the site and condition and offer a complete system with guaranteed performance.

1. ENGINE SPECIFICATION:

4 Stroke, turbo charger, suitable for developing, 880 BHP (750 KVA) at 1500 rpm, water cooled diesel engine with 24 volts electric start arrangement with silencer and engine control panel, complete with first filling of oil of required quantity as recommended by the manufacturer. The set integral with suitable acoustic enclosure as per standard of Center for Pollution Control Board (CPCB).

ENGINE CONFORMANCES STANDARDS

BS 5514

The fuel systems shall consist of:

1. Fuel service tank of rectangular shape made out of suitable MS sheet. Approximately 1000 liter capacity mounted on suitable fabricated steel structure.
2. PT fuel pump
3. Injectors
4. Fuel filter and self containing piping

Lubrication system shall consist of:

1. Engine mounted oil pump
2. Plate type lube oil cooler
3. Self containing piping
4. Pre lube pump with starter and necessary piping

Exhaust system should consist of

1. Turbo charger, pulse tuned exhaust manifold with expansion joint.
2. Stainless steel exhausts connection.
3. Exhaust silencer.
4. Exhaust piping and stack with support structure to take the pipe unto one meter above the roof of the canopy.
5. The portion of exhaust pipe / silencer inside the canopy has to be provided with thermal lagging using glass wool of appropriate type and 22 gauge aluminum cladding.
6. A robust exhaust fan mounted on suitable frame in the body of canopy to desparate extra heat in the canopy.

Governing system shall consist of

Electronic / digital governor class A1

Starting system shall consist of:

1. DC starter motor.
2. Battery charging alternator with built in regulator.

Engine mounted instrument shall consist of:

1. Starting switch.
2. Water temperature gauge.
3. Lube oil pressure gauge.
4. Hour meter for recording hours run at 1500 rpm.
5. Digital Speedo meter.

The Engine Protection:

1. High coolant temperature (trip)
2. High Water temperature (alarm)
3. Low lube oil pressure (trip)
4. Over speed (trip)
5. Cooling water pump trip (alarm)
6. Any other protection system with deemed necessary

Cooling system:

Suitable type radiator and accessories

Battery with charger

The battery shall be:

Heavy duty, exide make, tubular type of 24 volts, 300 AH with battery charger, with dimmer state. DC volt meter and amp meter 0-30 amp, 24-30 volts, DC output, with O/C protection, Auto controlled during starting of engine, maintenance for the period of one year including one set of standard tool required for normal maintenance is also to be supplied.

Acoustic enclosure:

Acoustic enclosure system (sound proofing shall be designed to comply with norms of the CPCB requirement with adequate ventilation facility to ensure non-deterioration of DG performance, the construction shall be modular type to facilitate dismantling as required for maintenance, having sufficient stiffness and rigidity. The enclosure shall suitable for outdoor installation without any external shade / shelter. All hardware used for enclosure shall be electro galvanized.

2. ALTERNATOR SPECIFICATION

Type : Self excited, self regulated brush less with exciter field controlled by panel mounted solid state voltage regulator.

Regulation: +/- 2.5% of rated voltage from no load to full load, KVA / KW rating 7500/600.

Voltage : 415 volts +/- 0.5%

No. of phases : 3 phase + neutral

Frequency : 50 HZ

Insulation : Class H

Standard enclosure : IP 23

Rotor Winding : Dynamically balance

Web from distortion : No load < 1.8% / balance linear load < 5%

Total harmonic distortion : No load < 2%

Balance linear full load : <or = 3%

Conformance standards : IS4722/BS2613

1. The alternator shall further meet the following specification:
2. The alternator shall be suitable for 20% over speed for 2 minutes.
3. The alternator shall be capable of carrying 10% over loading for 1 hour in any period of 12 hours running.
4. The alternator shall be capable of sharing 50% over load for duration of 1 Minute.
5. The alternator shall with stand a three phase short circuit at the terminals for a period of 3 seconds.

CABLING AND EARTHLING:

Complete cabling including power, communication and control is to be carried out with suitable size of copper cable by supply from DG to control panel battery charger etc. suitable earthing using 25 x6/40 x 3mm copper strip and 600 mm x 600 mm x 6 mm tined copper earth plates separate for both neutral and body is to be corporate in the supply. 1 no. interlink earthing system is to be provided (total 2 earth pit are required).

Accessories

1. Necessary over temperature shall be provided for alternator winding.
2. 230 volt space heater for alternators winding with switch and indicator.
3. Switch and indicator shall be mounted on panel
4. Earthing terminal 2 no. of adequate capacity shall be provided on the alternator.
5. Cable termination box and control cables shall be provide to be comply the regulation of UP State Electrical Rules and IEC.
6. A neutral CT of adequate ratio and class for REF relay for DG protection.

SPECIFICATION FOR DG CONTROL

The DG control panel shall be provided with auto / manual start and load sharing facility backup with suitable size of ACB make GE / Siemens / L&T metering and protection system with require relay.

MODULE INCORPORATE

Numbers of cranking, cranking duration, delay with two cranking supply failure tank, restoration tank, and engine fail to start, battery voltage sensing etc.

1. Selection switch and push button. : manual / auto / switch
2. DC on / off switch
3. Engine start and stop push button for manual operation.
4. Breaker close / open push button for manual operation.
5. Acknowledge and reset push button
6. Complete etc. as require.
7. An odiable alarm with more than 110 DB shall be provided

METERING:

Continuous reading combined meter for voltage / amp and frequency for alternator and main supply separately. Necessary current transformer should be provided for metering continuous reading digital KW / power factor / KVA meter for amp meter and volt meter for filled excited.

INDICATION (LED):

DG On, Load on DG

Main ON, load on mains

SWITCH GEAR:

Electrically operated draw out type with current rating 1250 amp. Short circuit current with stand capacity of 50 KA for 1 second for both alternator and main supply. Make siemens/ L & T / GE.

PROTECTION:

ACV (Alternator should have electronic or micro processor base 3 O/C, S/C and E/F programerable releases having different time setting, low set E/F protection using CT at neutral earthling conductor and REF protection relay)

Other Technical Specification:

1. The panel shall be of sheet steel enclosure fully compartmentalized floor mounting dust and vulming proof with non decorating gas kit to be used all adjacent covers and doors for dust proofing approximate size of the DG control panel with 2 meter H 1 meter width by 1 meter depth. The exact size of the panel shall be mentioned in purchase order during approval of the panel drawing.
2. Electronic or microprocessor trip unit of AC should have distinct LED fault indicator with test and reset button.
3. Automatic safety shall be provided in the panel.
4. ACB have minimum 2 no. + 2 NC
5. O / C of AVB setting shall adjustable from 50 to 100%
6. ACB shall be confirming to Indian stander IEC60947-2 & IS 13947-2.
7. For extensions, ends shall be suitable size of nuts and volts with washer be provided.
8. Necessary drawing for PCC will be given later for above purpose.
9. Necessary provision shall be provided for cable termination of single core 300/400 square mm suitable runs of PCC insulated unarmored copper cable, 4 runs AYFY with suitable glands.
10. The main bus should be A1 conductor of 1500 amp. Continuous rating and short circuit current capacity of 50 KA.
11. The design of panel should comply the statutory requirement of confirming of the standard IS 13947:93 & IS:8623
12. The type space heater rated for 240 V, 1 phase, 50 Hz AC supply with control thermostat. ON / OFF switch HRC fuses in the phase and neutral link shall be provided in the panel.
13. The panel should be supported on a base channel painted black all around and suitable for bolting. The sheet metal used for the fabrication of the panels shall undergo a process of degreasing, recalling, phosphate and chromate sealing. Then sprayed with high corrosion resistant primer. The finishing treatment shall be application of two coats synthetic enamel of color Siemens Grey.

GENERAL SPECIFICATION:

1. Related schematic and GA drawings shall be supplied, for DG installation, exhaust piping, fuel piping, cooling system, ventilation system, acoustic enclosure etc.
2. Complete control drawings, GA drawing and power supply drawing of DG panel shall be supplied before starting the manufacturing work of panel.
3. Any related work, covering supply of installation materials, consumables, etc. whether specified or not, to render the system fully functional and conforming to the best Engineering standards.
4. Engine and alternator shall be aligned on a sturdy base frame made of high quality MS channels with Dunlop make AVM.
5. The equipment and accessories covered by this specification shall be designed, manufactured and tested in accordance with the latest relevant standards and codes of practice published by the BIS.
6. Factory Test Certificate shall be given for all equipments.
7. The item should be guaranteed for materials, workmanship and performance for a minimum period of 24 months from the date of commissioning.
8. The overall dimensions of DG set should be submitted along with quotation.
9. The diesel engine shall comply with the emission limits and certified as per the norms of environmental protection act.
10. All detailed wiring diagram of DG and control panel should be got approved before fabrication.
11. Three copies of all detailed wiring and other connected drawing, spare parts manual of engine, alternator and other accessories to be supplied along with the DG set.
12. Three copies of maintenance manual and trouble shooting techniques may also be supplied along with DG.
13. The intending tendered should fulfill the following requirements:
 - a. Should be authorized OEA/M (Original equipment Assembler / Manufacturer of one or more reputed make of engine and alternators.)
 - b. Should have authorized service center of complete DG set in UP preferably very near to Varanasi.
 - c. Should have valid type approval and conformity of production certificates (COP) for emission limits for the engine and for noise limit (84 db) for DG sets as applicable.

TESTING

1. At manufacture's site:

The following tests on engine & alternator shall be carried out at manufacture's works in accordance with applicable Indian Standards in the presence of TCC's representative.

1. Routine tests.
2. Full load running test for 1 hour continuously.
3. One hour overload test at 110% load.
4. The guaranteed specific fuel consumption.
5. Total harmonic distortion – no load and full load.

2. At customer site:

1. Checking the alignment.
2. Insulation test on alternator.
3. Vibration and noise level.
4. Testing of individual protective devices.

The DG set shall be deemed to be commissioned, after satisfactory performance of all associated equipments at SS Hospital, BHU.