



Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT/ MATERIALS MANAGEMENT

An ISO 9001
Company

ENQUIRY	Phone: +91 431 257 76 53 Fax : +91 431 252 07 19 Email : skaruna@bheltry.co.in Web : www.bhel.com
NOTICE INVITING TENDER	

TWO PART BID	Enquiry Number: 2621200001	Enquiry Date: 02.01.2012	Due date for submission of quotation: 02.02.2012
Tender to be submitted in two parts.			

You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer is reaching physically our office before 14.00 hrs on the Date of tender opening.

Item	Description	Quantity	Delivery (Item required at BHEL on)
10	Design, Supply, Fabrication, Transportation, Erection and Commissioning of Underground Bulk HSD Storage Tank Confirming to IS -10987 -1992 of 1 No. x 40 KL (2.75 M Dia x 7.5 M Length Horizontal) Nominal Capacity Fabricated from MS Plates and their Accessories including Liaison work with various agencies as per the technical specification, general guidelines instructions & commercial conditions applicable (to be downloaded from web site www.bhel.com or http://tenders.gov.in)	01 No	25.05.2012

Important points to be taken care during submission of offer

1. Checklist to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
2. Subsequent to the hosting of this Enquiry, any corrigendum to the Enquiry that may be hosted in the BHEL Web-site shall be viewed by the vendors regularly to know the details of corrigendum. In case if any vendor without seeing the corrigendum quoted as per original Enquiry and intimate that they have wrongly quoted will not be considered and rejected. However as per the appropriate Policy of BHEL action will be taken on them in this regard.

BHEL's General guidelines / instructions (refer MM/CE/GT/001) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry referred above.

Tenders should reach us before 14:00 hours on the due date
Tenders will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

Manager / MM / Capital Equipment

**QUALIFYING CRITERIA FOR THE SUPPLY, ERECTION & COMMISSIONING OF
1 X 40 KL HSD UNDER GROUND STORAGE FACILITY**

SECTION - 1

Company Profile: The Bidder has to provide the details pertaining to each clause in the table given below

S.No	BHEL PARTICULARS	BIDDER's RESPONSE
1.00	Number of Years of Experience of the BIDDER in the field of Supply and Installation & Commissioning of the following, as per the extant Statutory Regulations and CCOE norms: a. HSD under ground storage systems b. Associated Liquid Unloading System from Supply Tanker to tank c. HSD returnable System from DG set.	
2.00	Details on the Sub-Vendor(s) - if any, from whom the storage tank, equipment and accessories for the above, are sourced - to include the following : a. Name of the Sub-Vendor(s) with contact address. b. List of Manufacturing Facilities of Sub-vendor(s) capable of producing the above listed equipment c. Quality Plan for Manufacture of the above equipments and accessories [NOTE : BHEL might visit the works of the sub-vendors for assessment of their design capabilities and production facilities.]	
3.00	Details on SERVICE-AFTER-SALES Set-up with competent service engineers for the BIDDER, including the Addresses of Agents/Service Centers in the local regions to be furnished.	

SECTION - II

Qualifying Criteria

The Bidder has to compulsorily meet the following requirements to get qualified for submitting an offer

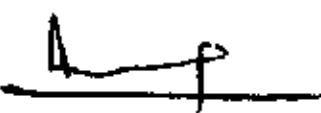
S.No	BHEL PARTICULARS	BIDDER's RESPONSE
4.00	The BIDDER shall be a approved INSTALLER for the Scope of Supply and Work including Installation & Commissioning of System. The BIDDER shall have a minimum of TEN YEARS of continuous experience in this filed of activity.	
5.00	The BIDDER should have carried out the work of supply, erection & commissioning of minimum FIVE Numbers of HSD Storage System with Associated Handling Systems , with a storage capacity of 30 Tons and above.	
6.00	The BIDDER shall furnish reference list of customers (with complete contact details - for a cross reference by BHEL) who are the end users of the HSD Storage Systems listed under Clause No. 5.0	
7.00	The BIDDER shall submit the Performance Certificate in the enclosed FORMAT (for a period not less than one year from the date of commissioning), from minimum TWO CUSTOMERS in their Letter Head stating the satisfactory execution of the contract (pertaining to installation of HSD under ground systems - as per Clause No.5.0) and further prompt service support.	
S.No	BHEL PARTICULARS	BIDDER's RESPONSE


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8.00	The BIDDER shall submit the copies of Balance Sheet for the last five financial years with IT Returns and SOLVENCY Certificate from competent authorities.	
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SECTION - III

S.No	BHEL PARTICULARS	BIDDER's RESPONSE
9.00	The BIDDER shall SUBMIT the offer in TWO PARTS - one part containing the Technical (including PART A & PART B portions of the Technical Specifications) & Commercial Terms with Scope of Supply & Installation Work and the second part containing the Price Bid pertaining to the Scope of Supply & Installation Work.	
10.00	The OFFER Shall contain a comparative statement of Technical Specifications given by BHEL and the offer Details submitted by the Bidder, against each Clause. A just 'YES' or CONFIRMED' or NO-DEVIATION' or 'ACCEPTED' or similar words in the technical comparative statement may lead to disqualification of the Technical offer.	
11.00	The Technical offer shall be supported by basic design calculation and Data Sheets In ORIGINAL and complete technical details of 'Bought-out-Items' with copies of Product Catalogue (if applicable)	
S.No	BHEL PARTICULARS	BIDDER's RESPONSE
12.00	The Commercial Offer shall contain the Scope of supply and the Un-Priced Part of the Price -bid, for confirmation of the inclusion of all the accessories, auxiliary parts, safety devices, spares consumables, etc with the main equipment, to meet the technical specification requirements.	
13.00	The expected delivery period (including the time for Pre-Dispatch Inspection clearance by BHEL) for the HSD Storage systems with Associated Accessories , is not more than THREE Months (which includes time for General Arrangement Drawing approval by BHEL also) from the date of issue of BHEL purchase order. The erection & commissioning, including clearance from the local authorities and statutory agencies, shall be complete in a period of ONE Month, after the receipt of equipment at site.	
14.00	BHEL reserves the right to have stage inspection of HSD tank and other equipment (falling under the scope of supply) during manufacture at the vendors' works.	
15.00	BHEL reserves the right to verify the information provided by vendor, and In case, it is found to be false/incorrect, the offer shall get rejected.	


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TECHNICAL SPECIFICATION FOR DESIGN,SUPPLY& INSTALLATION OF 1X40KL HSD UNDERGROUND SYSTEEM			
Sl.No	BHEL SPECIFICATIONS	DESCRIPTION / PARTICULARS	BIDDER'S OFFER [with COMPLETE TECHNICAL DETAILS]
1	NAME OF WORK	Design, supply, fabrication, transportation,erection and commissioning of underground Bulk HSD storage tank conforming to IS - 10987 - 1992 of 1 No. x 40 KL (2.75 Mtrs Dia x 7.5 Mtrs length horizontal) nominal capacity fabricated from carbon steel plates &	
2	BRIEF DESCRIPTION OF WORK	M/s. BHEL has proposed to set up 1 x 40 KL capacity of U/G HSD tank storage facility in the premises of BHEL , at THIRUMAYAM to meet day to day HSD requirement for 2000 KVA DG SET	
3	HSD TANK WITH ALL NECESSARY FITTINGS/MOUNTINGS FOR 1x 40 KL UNDERGROUND BULK HSD STORAGE CAPACITY	Vendor to specify the details	
4	HSD tank bottom pedestal steel supports with steel plates and lifting lugs as per IS 10987	Vendor to specify the details	
5	For the Tank wrapping of STP sheet as per IS 10987	Vendor to specify the details	
6	Digital Level Indicator for U/G tank connection to BMS (digital percentage level indicator for HSD storage tanks consisting of display unit and level sensor.	Vendor to specify the details	
7	Flame Arrestor for U/G tank vent line as per CCOE, Norms. Make: M/s Vanaz/Fischer	Vendor to specify the details	
8	1 no. working & 1 No. standby fuel pump near the underground storage tank. The capacity of pump 110 LPM of positive displacement type with integral pressure relief valve with skid mounting arrangement suitable flame & explosion proof motor as per IS- 2148 along with base plate ,slope arrangement and drain provision. Pump Make : M/s Tushaco,delta& Rotodel , Make of motor: M/s Kirloskar,ABB ,Siemens	Vendor to specify the details	
9	Flame proof ON/ OFF (DOL starter) switch at fuel pump in side the yard area. Make:M/s Sudhir/precision engineering	Vendor to specify the details	
10	Pressure Gauges 4" Dia , 0-10 kg range with isolation valve. Make: M/s WIKA/PYRO/WAREE	Vendor to specify the details	

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11	Pressure Relief Valve near the Pump outlet line	Vendor to specify the details	
12	Piping with Fittings:		
12.1	Seamless Piping including all necessary bends, flanges, reducers, packing sheets and tees for all interconnections.	Vendor to specify the details	
12.2	80mm dia (approx) for U/G tank main inlet & outlet 50mm pipelines - 1 LOT	Vendor to specify the details	
12.3	The required piping from HSD U/G tank to DG set, from day tank to spill tank & spill tank (return pipe) upto HSD tank shall be vendor scope. Day tank is available with DG set.	Vendor to specify the details	
13	Standard Ball Valves & Strainers with flange ends		
13.1	40mm size valve - 12 nos. Make: M/s virgo/audco/microfinish	Vendor to specify the details	
13.2	80mm size valve - 1 no. Make: M/s virgo/audco/microfinish	Vendor to specify the details	
14	NRV flange type of Valve		
14.1	40 mm size valve - 2 nos. Make: M/s aurum/audco/apar	Vendor to specify the details	
15	Strainers		
15.1	40mm size - 1 no. Make: M/s Mark/audco	Vendor to specify the details	
15.2	80mm size - 1 no. Make: M/s Mark/audco	Vendor to specify the details	
16	FLOW METER		
16.1	Digital Flow meter with totaliser for measuring quantity suitable to HSD with Battery backup system for inlet line from tanker to HSD storage (80mm) and outlet line from HSD tank to DG set (50mm) 1 no for each size. Suitable bypass arrangement shall be provided with isolation valve for maintenance purpose. Make: M/s Fludyne/nuflo/Forbes marshal/Eureka	Vendor to specify the details	
16.2	40 mm size Solenoid Valve of diaphragm type for DG Set - 1 no. Make: M/s AVCON, ASCO	Vendor to specify the details	
16.3	Low level / High level transmitter probes for U/G HSD tank and day oil tank 1 set for each tank. Make: M/s Techtrol, V-automat, Levcon and indfoss.	Vendor to specify the details	
17	STRUCTURAL MATERIALS		
17.1	Pipe supports steel structural - supply, fabrication & erection for main pipeline over head tanks, day tanks & pipeline supports, etc. 1 LOT	Vendor to specify the details	


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18	Unloading SS wire braided rubber standard 80mm hose pipe with end fittings of 5 mtr length with threaded cap for Nozzle with chain static current discharging for HSD tank -1 set.Make: Markwell,kantaflex,senior flexonics,supreme,Fenner and gates.	Vendor to specify the details	
19	GI earth flat 40 x 5 mm for HSD tank and motor earthing- 1 LOT as per IS specification.	Vendor to specify the details	
20	Earthing clamps for flange joints as per IS specification-1 LOT	Vendor to specify the details	
21	D.C.P type of capacity 10Kg/CM2 fire exstinguishers-4 nos of dry chemical powder with ISI make.	Vendor to specify the details	
22	stands for the fire buckers - 2 nos	Vendor to specify the details	
23	Fire buckets - 8 nos	Vendor to specify the details	
24	Sign boards- 1SET	Vendor to specify the details	
25	Spill tank of 550 Litres capacity for over flow fuel return line -1 No.	Vendor to specify the details	
26	Suitable pump 1 no with flame proof motor as per IS- 2148 For Return line from Spill tank to HSD under ground tank. Make:Tushaco,Rotodel,Stork	Vendor to specify the details	
27	Flame proof DOL starter for pump near the spill tank - 1No.Make: Sudhir,precision engineering	Vendor to specify the details	
28	BHEL will provide input power supply for the Control panel. The control panel type IP 65 rating wheater proof for operation of fuel pumps for emergency stop switch including BMS connectivity along with potential contacts.All cables for motors and control cables for high and low level switches,digital level indicator with transmitter ,solenoid ,limitswitches should be scope of vendor.Separate digital level indication shall be provided in the control panel also for main tank and day tank.	Vendor to specify the details	
29	All power cables and control cables shall be FRLS type,Copper armoured cable.Make:Polycab. Cables shall be laid through PVC pipes for an approximately a distance of 15 Metre.	Vendor to specify the details	
30	Earth Pit 40 x 6mm flat earthing for HSD tank, Fuel pumps and motors. The required earth pits shall be provided by BHEL.Interconnection of flat with earth pits by vendor scope.	Vendor to specify the details	
31	PAINTING: The overall coating thickness of 3.2 mm	two coats of primer and 2 coats of Tankmastic (Bitumen Paint) as per IS 158 code	
32	LIAISON WORK - BHEL SCOPE		

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32.1	Preparation of drawings, documentation for obtaining Proposed approval from Chief Controller of Explosives, Nagpur or Joint Chief Controller of Explosives, Chennai	Vendor to note	
32.2	Preparation of documentation for Commissioner of Police or District Collector and with different departments(Like Fire, Revenue, Police department etc.,) for obtaining NOC from District Authority .	Vendor to note	
32.3	After obtaining NOC and total Completion of HSD installation Required Competent Persons Certifications(i.e Safety certificate s under rule 130 and tank test certificate under Rule 126 under petroleum rules 2002.)	Vendor to note	
32.4	Preparation of drawings, documentation for final licensing for obtaining Final Licence from Chief Controller of Explosives, Nagpur or Joint Chief Controller of Explosives, Chennai including traveling, boarding and lodging, out of pocket expenses.	Vendor to note	
33	ERECTION & COMMISSIONING		
33.1	The Erection & Commissioning and handing over of the system is in the scope of Bidder.The supplier shall deploy skilled technicians for installation & commissioning of HSD STORAGE & Connecting to the proposed pipe network and qualified Engineers/ Supervisors for the supervision of work .	Vendor to confirm	
33.2	The work shall be executed in a professional manner adopting safe working practices. All Statutory Regulations and as promulgated from time to time and as required for good Engineering practice shall be adhered to.	Vendor to confirm	
33.3	All Statutory labour laws like PF , ESI etc., in respect of labour shall be strictly adhered to.	Vendor to confirm	
33.4	The Bidder may visit the BHEL Site at Thirumayam for HSD & their accessories for installation and commissioning for assessing the quantum of work involved, before quoting if required.	Vendor to confirm	
34	PRE-DISPATCH INSPECTION AT SUPPLIERS WORKS		
34.1	HSD storage tank & their Accessories Shall be offered for Pre-dispatch inspection by BHEL Engineers at supplier's works	Vendor to confirm	
35	PROVE OUT AND ACCEPTANCE		


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35.1	HSD tank & their facilities establishment completion will mean after obtain the necessary inspection completion, statutory approval and physical demonstration of all systems to the satisfaction of BHEL engineers for the safe operation of the system as per the normal required parameters to satisfy the design condition.	Vendor to confirm	
36	WARRANTY		
36.1	Warranty for products against defective materials and workmanship for a period of 12 months from the date of commissioning or 18 months from the date of despatch whichever is earlier	Vendor to confirm	
37	BHEL SCOPE OF SUPPLY		
37.1	Complete Civil work involved for installation of U/G HSD Tank & their accessories which includes Civil Pedetals for Tanks, Pump Shed, Control Room, Unloading Gantry, Fencing, Gates etc.	Vendor to note	
37.2	Providing water line upto fencing.	Vendor to note	
37.3	Providing single point Power source (Panel Board) to all concerned Electrical Equipments like motor, SOV, starter etc.	Vendor to note	
37.4	Explosive Fees towards Drawing Approval and towards Final License Fees for 3 years as applicable.	Vendor to note	
37.5	Local NOC from District Magistrate from the date of receipt of Drawings Approval.	Vendor to note	
37.6	Protection of the HSD yard with galvanized chain link fencing around the HSD yard area with MS posts,	Vendor to note	
37.7	Main gate for TANKER and small gates for emergency entry	Vendor to note	
38	Vendor's scope of supply		
38.1	Design, supply, fabrication, erection of commissioning of underground Bulk HSD storage tank conforming to IS - 10987 - 1992 of 1 No. x 40 KL (2.75 Mtrs Dia x 7.5 Mtrs length horizontal) nominal capacity fabricated from MS plates & their accessories.	Vendor to confirm	
38.2	Digital Level Indicator for U/G tank connection to BMS (digital percentage level indicator for HSD storage tanks consisting of display unit and level sensor.	Vendor to specify the specification, reputed make with quantity	
38.3	Flame Arrestor for U/G tank vent line as per CCOE, Norms.	Vendor to specify the specification, reputed make with quantity	


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38.4	1 no. working and 1 No. standby fuel pump near the underground storage tank. The capacity of pump 110 LPM with integral relief valve and suitable flame proof motor as per IS- 2148 along with skid mounting arrangement, base plate etc.	Vendor to specify the specification, reputed make with quantity	
38.5	Flame proof ON/ OFF (DOL starter) switch at fuel pump in side the yard area	Vendor to specify the specification, reputed make with quantity	
38.6	Pressure Gauges 4" Dia , 0-10 kg range with isolation valve	Vendor to specify the specification, reputed make with quantity	
38.7	Pressure Relief Valve near the Pump outlet line	Vendor to specify the specification, reputed make with quantity	
38.8	Seamless Piping including all necessary bends, flanges, reducers, packing sheets and tees for all interconnections.	Vendor to specify the specification, reputed make with quantity	
38.9	Ball Valves with flange ends	Vendor to specify the specification, reputed make with quantity	
38.10	Strainers	Vendor to specify the specification, reputed make with quantity	
38.11	Flow meters	Vendor to specify the specification, reputed make with quantity	
38.12	NRV flange type of Valve	Vendor to specify the specification, reputed make with quantity	
38.13	Structural steel for pipe line supports.	Vendor to specify the specification, reputed make with quantity	
38.14	Solleniod Valves of diapharm type for DG Set	Vendor to specify the specification, reputed make with quantity	
38.15	Low level / High level transmitter probes for HSD U/G tanks and Day tank.	Vendor to specify the specification, reputed make with quantity	
38.16	GI earth pati 40 x 5 for HSD tank and motor earthing- 1 LOT	Vendor to specify the specification, reputed make with quantity	
38.17	Earthing clamps for flange joints -1 LOT	Vendor to specify the specification, reputed make with quantity	
38.18	D.C.P type of capacity 10Kg/CM2 fire exstinguishers	Vendor to specify the specification, reputed make with quantity	
38.19	stands for the fire buckers	Vendor to specify the specification, reputed make with quantity	
38.20	Fire buckets	Vendor to specify the specification, reputed make with quantity	


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38.21	Sign boards		Vendor to specify the specification, reputed make with quantity	
38.22	Spill tank For over flow fuel return line.		Vendor to specify the specification, reputed make with quantity	
38.23	Gear pump with flame proof motor For Return line		Vendor to specify the specification, reputed make with quantity	
38.24	Flame proof DOL starter for pump near the spill tank .		Vendor to specify the specification, reputed make with quantity	
38.25	Transportation of HSD tank and related accessories to BHEL Site/Thirumayam,Pudukottai District,Tamil Nadu		Vendor to confirm	
38.26	Automatic Control panel Type IP 65 rating whether proof for operation of fuel pumps for emergency stop switch including BMS connectivity along with potential contacts.		Vendor to specify the specification, reputed make with quantity	
38.27	copper armoured cable		Vendor to specify the specification, reputed make with quantity	
38.28	Double Earth pit for HSD Yard		Vendor to specify the specification, reputed make with quantity	
38.29	Charges for CCOE Approval to be paid by BHEL		Vendor to note	
38.30	Painting shall be two coats of primer and 2 coats of Tankmestic (Bitumen Paint) as per IS 158 code.		Vendor to specify	
38.31	Preparation of drawings, documentation for obtaining Proposed approval from Chief Controller of Explosives, Nagpur or Joint Chief Controller of Explosives,Chennai of Explosive including traveling, boarding and lodging, out of pocket expenses, also approval		Vendor to note	
38.32	Preparation of documentation for Commissioner of Police or District Collector and with different departments(Like Fire, Revenue, Police department etc.,) for obtaining NOC from District Authority .		Vendor to note	
38.33	After obtaining NOC and total Completion of HSD installation Required Competent Persons Certifications(i.e Safety certificate s under rule 130 and tank test certificate under Rule 126 under petroleum rules 2002.)		Vendor to note	
38.34	Preparation of drawings, documentation for final licensing for obtaining Final Licence from Chief Controller of Explosives, Nagpur or Joint Chief Controller of Explosives,Chennai including traveling, boarding and lodging, out of pocket expenses.		Vendor to note	


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38.35	The indent of this specification is to provide services for executing the projects according to most modern and proven techniques and codes. The omission of specific reference to any method, and equipment or materials necessary for the proper and efficient services towards installation shall not relieve the contractor of the responsibility of providing such services / facilities to complete the work or portion of work awarded to the Supplier. The quoted rate shall deem to be inclusive of all such contingencies.	Vendor to confirm	
39	Documents to be supplied along with material supply:		
39.1	Three sets of the following documents are to be provided along with supply (Both hard copy and Soft copy-CD):	Vendor to confirm	
39.2	P&I (preferably with standard coloring) with Bill of materials giving purchase specifications for each item.	Vendor to confirm	
39.3	Function diagram for the entire operations of the system giving solenoid sequences, interlocks and pressure & flow parameters ,etc for each operation.	Vendor to confirm	
39.4	List of rubber items if any with complete purchase specification.	Vendor to confirm	
39.5	Cross sectional assembly drawing for all the valves giving major dimensions, seal details, mounting details, pressure ratings, etc.	Vendor to confirm	
39.6	Detailed technical Catalogues in original for all components in the system.	Vendor to confirm	
39.7	Electrical schematic/ control circuit diagram with Bill of materials giving complete purchase specification of all bought out components.	Vendor to confirm	
39.8	Electrical wiring diagram with ferrule numbers.	Vendor to confirm	
39.9	Control panel lay-out and foundation details.	Vendor to confirm	
40	Time schedule for design, supply, erection, testing & commissioning	Vendor to confirm	
40.1	Supply - Three months from the date of issue of Purchase order. Erection & commissioning - one month.	Vendor to confirm	
41	Documents to be supplied along with technical offer:	Vendor to confirm	
41.1	Vendor should furnish the function diagram for the entire operations of the HSD system giving operating sequences.	Vendor to confirm	
41.2	Vendor should furnish P&I Diagram indicating all the Bill of materials and GA drawing for HSD tank with all connections.	Vendor to confirm	


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