

 <p style="text-align: center;">BHARAT HEAVY ELECTRICALS LIMITED RAMACHANDRAPURAM:: HYDERABAD::32 FACTORY CIVIL & PROJECTS DEPARTMENT Phone nos: 040-23185059, 23182376 Fax: 040-23186122 email Id: suryadevara@bhelhyd.co.in</p>					
Schedule-A			Tender Notice No.		
PROJ-EC/ELEC/OT-14/2013-14 Dtd. 21.03.2014					
Item No.2					
Price Bid					
Name of the work : Erection of LPG, air and Steam pipelines and supporting trusses for 4 TPH Boiler in 02 Shop.					
Sl.No	Work Description	Qty	Unit	Rate / Unit in Rs	Total Amount in Rs
	The scope of work involves collection of materials / equipment from stores / yard, shifting, laying, erection of pipe lines, valves, flanges , elbows, Tees, reducers etc and fabrication and erection of support structures/trusses, tee hangers etc. Pipelines are to be aligned and joined by TIG root welding & arc welding / flange joint with bolts, nuts, washers and gaskets and clamped on supports at a height of +12 Mtrs. to 0 Mtrs level as per drawing / BHEL Engineer's instructions. CS & AS (IBR Quality P11) pipe, pipe fittings only will be provided by BHEL free of cost. The rates quoted includes all the above work with contractor's welding electrodes,consumables and equipments. The Contractor has to arrange own transportation for material shifting from BHEL stores to work site. All necessary safety precautions like usage of safety belts at height works, usage of relevant PPEs etc. have to be taken care off by the contractor.				
1	Laying of Steam pipeline & water drain line: Fabrication, erection , testing of piping for Medium Pressure steam pipe lines (50 Kg/cm2) and temperature (180 - 250 °C) including pipe fittings, flanges, valves, bends, hangers & structural supports etc. as per IBR quality. (Tools & tackles, welding rods & equipment are in the contractor's scope). Contractor has to engage only IBR qualified and tested welders for the above works.				
a	Laying of Pipe dia.3" (sch.40)- P11 (IBR quality)	45	RM	300.00	13,500.00
b	Root run TIG welding with contractors TIG welding set, Tungston electrode. Arc welding to be done after TIG welding. Welding to be done as per IBR quality of Pipe P11 dia.3" (sch.40). X ray tests will be carried out by BHEL. If the joint fails in X - Ray test, the agency has to cut the joints, reweld and offer for Xray test again at their own cost.	50	Jts	2,100.00	105,000.00
c	Supply & Erection of Flange type AS Gate Valve dia. 3",#300 (Pressure Rating 300 lbs). The supplied valves should be of Audco/ Kirloskar make and confirm to the detailed specification of BHEL Material Standards	2	No.	15,000.00	30,000.00
d	Installation of pressure gauge points, Pressure gauges will be provided by BHEL	1	Pts	150.00	150.00

e	Supply and installation of thermal insulation for steam pipeline Pipe dia.3" (sch.40)- Alloy Steel with LRB insulation and covering it with 22 SWG Aluminium sheet as required. (Before starting the work,surface should be cleaned perfectly). The pipeline work includes Tees, running joints & bends etc.. After applying glass wool mattress of specified thickness,backned on one side with 22 SWG, 3/4" GI wire mesh and stiched it tightly with 24 G GI lacing wire. Fabrication and fixing of 22 G of commercial quality Aluminium sheet to the required true shape with sufficient overlap and tightening it with No.8 self tapping parker screws. The design, material, workmanship, installation and measurements etc. should confirm to all the IS specifications relevant (IS 14164) with upto date amendments. The work should be executed as per the site Engineer's instructions. (Thickness of Insulation 75 mm)	37	Sq.M	1,500.00	55,500.00
f	HYDRAULIC TESTING :Filling of water and pressure testing of entire system as per norms after complete fabrication with contractor's Hydraulic pump. Hydraulic test should be carried out at 1.5 times the actual pressure of the line.		LS	12,000.00	12,000.00
2	Laying of LPG pipeline : Fabrication, erection, alignment and joining by TIG root welding & arc welding / flange joint with bolts, nuts, washers and gaskets and clamped on supports at a height of +12 Mtrs. to 0 Mtrs level as per drawing / BHEL Engineer's instructions. (Tools ,tackles, welding rods & equipment are in the contractor's scope)				
a	Laying of Pipe dia.2" (sch.40)-Carbon Steel	52	RM	230.00	11,960.00
b	Butt Weld Joints in Pipe dia.2" (sch.40)-Carbon Steel: Root run TIG welding with contractors TIG welding set, Tungston electrode. Arc welding to be done after TIG welding. DP test to be done on all joints.	23	Jts	380.00	8,740.00
c	Supply & Erection of Flange type Ball Valve dia. 2" (Pressure Rating 150lbs) of make Audco/Microfinish/BDK/Flowchem/Nirmal/Vanaz/Crescent	1	Nos.	10,000.00	10,000.00
d	Installation of pressure gauge points, Pressure gauges will be provided by BHEL	1	Pts	150.00	150.00
e	Testing : Leak Test & Pressure test for a pressure of 5Kg has to be carried out. The contractor has to arrange for the required equipment for testing purpose.		LS	12,000.00	12,000.00
3	Laying of Compressed air pipeline : Fabrication, erection, alignment and joining by arc welding / flange joint with bolts, nuts, washers and gaskets and clamped on supports at a height of +12 Mtrs. to 0 Mtrs level as per drawing / BHEL Engineer's instructions. (Tools ,tackles, welding rods & equipment are in the contractor's scope)				
a	Laying of Pipe dia. 1" (sch.40)-Carbon Steel	52	RM	100.00	5,200.00
b	Butt Weld Joints in CS Pipe dia.1" (sch.40): ARC welding with contractors welding set, electrode. DP test to be done on all joints.	25	Jts	230.00	5,750.00
c	Erection of CS Flange type gate valve dia 1" Make -AUDCO supplied by BHEL.	1	Nos.	125.00	125.00

d	Installation of pressure gauge points, Pressure gauges will be provided by BHEL	1	Pts	150.00	150.00
4	Fabrication : The scope includes fabrication and erection of existing structures, fabrication of columns, pipe racks, hanger supports, pipe supporting brackets tee hangers etc. Contractor has to arrange for transport to shift the material from BHEL stores to site and has to hand over the balance material to stores. Required plates, channels, angles, valves, elbows, t joints and pipes will be supplied by BHEL free of cost.	7	Tons	9,000.00	63,000.00
5	Supply of paints, aluminium heat resistant paint to withstand 200 degree celsius painting materials, rust preventive red oxide, primers synthetic enamel and other related painting items and Painting of pipes, trusses and other structurals with rust preventive redoxide primer & Synthetic enamel paint/ aluminium heat resistant paint to withstand 200 degree celsius as applicable, by thoroughly cleaning all the surfaces free from scales, dirt and other foreign matter. Each coat shall be applied in an even and uniform film free from lumps, streaks, runs and uncoated spots. 1 Coat of rust preventive redoxide primer with 40 microns thick and 1 coat of synthetic enamel paint as approved by BHEL. Two coats Make: ASIAN/BRITISH/SHALIMAR.	422	Sq.M	90.00	37,980.00
Estimated Value				TOTAL	371,205.00

NOTE:

- 1) The above rates are inclusive of VAT.
- 2) Service Tax is extra, as applicable and the contractor shall indicate Service Tax separately as extra in price bid.
- 3) The Contractor has to submit separate Service tax invoice along with RAB (Running Account Bill)
- 4) The quantities indicated in the schedule are tentative and may increase or decrease or delete.
- 5) Any other works not mentioned but required for completion of the project are to be carried out by the contractor with mutually agreed rates and vetted by finance.
- 6) Contractor shall shift the materials from different locations inside the factory to the project site and return back the left over materials after completion of the work to the project stores or as per the instructions of the site engineer.
- 8) **Safety:** Contractor has to ensure usage of safety shoes, safety helmets, safety belts, safety net & anchoring rope, hand gloves etc. during erection and commissioning.
- 9) Contractor should ensure the availability of calibration certificates for all the equipments likely to be used.
- 10) Contractor has to follow the work permit system strictly wherever applicable.
- 11) Contractor has to ensure neatness of the site by removing unwanted materials/srap materials.
- 12) The contractor should follow all the statutory requirements, Environmental Management System (EMS), Occupational Health and Safety Management System (OHSAS) while executing the work.

Note: The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimate value in figures and words.

Tender %	In Figures	In Words
Excess		
Less		
Estimated Value		