

Un-Price Bid Format::Schedule of Quantity,

Volume-II of NIT

Abstract of sheet

Works & Services Name: "MECHANICAL EQUIPMENT ERECTION AND PIPING WORKS etc." FOR IOCL PARADIP-STANDBY SRU (525TPD) TRAIN PROJECT Odisha.
Tender Ref no.T0AUX00073, dated:18.11.2021

Sl No	Description	UOM	Qty	Unit rate	Amount	Weightage %	Remark
1	Erection, testing and commissioning of "Mechanical Equipment and Piping" Works	Set	1			96.3713545%	Refer Section-A
2	Erection, testing and commissioning of "Mechanical Tie-In and Control Trace" Works	Set	1			3.6286455%	Refer Section-B
	Total (Excluding Taxes)					100.00%	
Note							
1	Evaluation Shall be based on total amount quoted by bidder, GST shall be paid extra.						
2	Bidders should quote only the Total Amount (Excluding GST) in the specified place. They should not fill/quote/write anything in col. (rate) & (amount) . These rates & amount will be derived from the Total amount quoted and weightage factor assigned against respective items indicated in col. (Weightage) (Bidder to quote the total price in BHEL NIC portal https://eprocurebhel.co.in)						

Section A:Erection, testing and commissioning of "Mechanical Equipment and Piping" Works

SI No	Description	UOM	Qty	Unit Rate	Total Amount	Weightage %	Remarks-1	Remarks-2
1	Erection, Testing and Commissioning of Piping system: Receipt from BHEL store, transportation to site, inspection, obtaining statutory approvals/ certificates as applicable, pre-assembly, erection, alignment, welding, NDT, fixing of hangers & supports, chemical cleaning / pickling, oil flushing, water flushing, hydro testing & steam blowing including temporary piping and pumps required for testing, surface finish, supply & application of primer & finish paints of all the pipes including pipe fittings and support structures as per requirement / as given in the drawings including labeling & flow direction on the piping / over insulation & hangers and supports, pre-commissioning, commissioning, trial operation & handing over to customer and supply & application of final painting, etc. for all the piping systems of Standby Sulphur Recovery Unit (SRU) Train Of 525 TPD along with Incinerator and Waste Heat Exchanger, Stack and Interconnecting works for IOCLI Paradip Refinery, Odisha, India.	Set	1			24.7104946%	For detail refer: "Section A1- Schedule of Quantity: Piping Works"	Payment Terms: Payment shall be made per ton basis as per following methodology: 1. 85% after fabrication, erection, NDT, touch up painting, testing 2. 10% After pre-commissioning, commissioning 3. 5% after punch point completion and handing over.
2	Equipment Erection: Erection, Testing, commissioning, trial operation and handing over to customer including receipt, unloading, handling of materials at BHEL stores and transportation to site, supply and application of touch up painting, obtaining statutory approvals/ certificates as applicable of; Reaction furnace package, Incinerator package, Heat exchangers, Vessels, Drums and all other BOS (Balance of Supplies) equipment of Standby Sulphur Recovery Unit (SRU) Train Of 525 TPD along with Incinerator and Waste Heat Exchanger, Stack and Interconnecting works for IOCLI Paradip Refinery, Odisha, India.as per technical specifications and approved drawings	Set	1			32.0399323%	For detail refer: Section-A2_ Schedule of Quantity:: Equipment Erection	Payment Terms: Payment shall be made per ton basis as per following methodology: 1. 85% after fabrication, erection, NDT, touch up painting, testing 2. 10% After pre-commissioning, commissioning 3. 5% after punch point completion and handing over.
3	Contro® Trace Works	Lot	1			0.2581292%	For detail refer: Section A3-Schedule of Quantity:: Contro Trace Works	Payment Terms: Payment shall be made per inch meter basis as per following methodology: 1. 85% after fabrication, erection, NDT, touch up painting, testing 2. 10% After pre-commissioning, commissioning 3. 5% after punch point completion and handing over.
4	Insulation Works	Lot	1			2.1123809%	For detail refer: Section A4-Schedule of Quantity: Insulation Works	Payment Terms: Payment shall be made per ton basis as per following methodology: 1. 85% after installation 2. 10% After pre-commissioning, commissioning 3. 5% after punch point completion and handing over.
5	Expert Manpower for Commissioning Works: Providing expert manpower for commissioning of the total project as per of TCC	Lot	1			1.0176928%	For detail refer: Chapter II- Scope of Work , clause no.1.4 of TCC.	Payment Terms: 1. 85% After pre-commissioning, commissioning 3. 15% after punch point completion and handing over.

SI No	Description	UOM	Qty	Unit Rate	Total Amount	Weightage %	Remarks-1	Remarks-2
6	Structural Steel Works: Erection, Testing and commissioning of all structural steel works.	Lot	1			39.8613701%	For detail refer Section-A6_Schedule of Quantity:: Structural steel and associated works	Payment Terms: Payment shall be made per ton basis as per following methodology: 1. 85% after fabrication, erection, NDT, final painting 2. 10% After pre-commissioning, commissioning 3. 5% after punch point completion and handing over.
Total (Excluding Taxes)						100.00%		

Section B: Erection, testing and commissioning of "Mechanical Tie-In and Contro Trace" Works							
SI No	Description	UOM	Qty	Unit Rate	Amount	Weightage %	Remarks
1	Mechanical Tie-In Works	Set	1			84.0037837%	For detail refer: Section B1-Schedule of Quantity: Mechanical Tie-In Works
2	Contro Trace Works	Set	1			15.9962163%	For detail refer: Section B2-Schedule of quantity:: Contro Trace Works
3	Total (Excluding Taxes)					100.00%	

Section A1-Schedule of Quantity: Piping Works						
Sl No	Description	UOM	Qty	Unit Rate In Rs.	Total Amount in Rs.	Weightage %
1	Receipt from BHEL store, transportation to site, Fabrication, erection, welding, radiography, painting of the following piping including pipe fittings and structures as per BHEL site engineer's instructions and technical specifications:					
1	Non-IBR					
1.1	CS: Non NACE, Galvanised, Internal Epoxy Coated	MT	452.07			34.6966819%
1.2	CS-NACE+HIC Non IBR	MT	347.00			27.9641118%
2	IBR					
2.1	CS IBR	MT	218.83			18.0824978%
2.2	Alloy Steel IBR (P 11)	MT	3.23			0.3317761%
3	SS	MT	5.01			0.7901237%
4	Valves	MT	86.00			6.6005589%
5	Hangers and supports etc.	MT	180.00			9.5705911%
6	Temporary Piping for chemical cleaning	MT	20.00			0.9688076%
7	Temporary Piping for steam blowing	MT	20.00			0.9948512%
	Total (Excl taxes)					100.00%

Section-A2_PriceBid Format:: Equipment Erection

SI No	Description	UOM	Qty	Unit Rate In Rs.	Total Amount In Rs.	Weightage %
1	<p>Reaction Furnace Package: Erection, Testing, commissioning, trial operation and handing over to customer including receipt, unloading, handling of materials at BHEL stores and transportation to site, supply and application of touch up painting of following items: Reaction furnace Burner, Reaction Furnace, Waste Heat Exchanger Steam Drum, Waste Heat Exchanger 1st Pass, Waste Heat Exchanger 2nd Pass, TSP Dosing skid</p> <p>Notes: 1. Refractory supply, application and dryout shall be in the scope of supplier. Utilities shall be arranged by erection contractor as per TCC Chapter XX. 2. Erection Supervision shall be in the scope of supplier.</p>	MT	550			21.4980384%
2	<p>Incinerator Package (Except Stack fabrication and welding): Erection, Testing, commissioning, trial operation and handing over to customer including receipt, unloading, handling of materials at BHEL stores and transportation to site, supply and application of touch up painting of following items: Incinerator burner, Incinerator chamber, Incinerator Fans alongwith motors, Incinerator Waste Heat Exchanger, Incinerator Steam Drum, Incinerator mud Drum, Incinerator Desuperheater, Incinerator stack, TSP Dosing Package (Skid Mounted), Supporting Structures & Platforms</p> <p>Notes: 1. Refractory supply, application and dryout shall be in the scope of supplier. Utilities shall be arranged by erection contractor as per TCC Chapter XX. 2. Erection Supervision shall be in the scope of supplier</p>	MT	768			30.0190791%

SI No	Description	UOM	Qty	Unit Rate In Rs.	Total Amount In Rs.	Weightage %
3	<p>Erection, Testing and commissioning Balance of Supplies (BOS) Items: Erection, Testing, commissioning, trial operation and handing over to customer including receipt, unloading, handling of materials at BHEL stores and transportation to site, supply and application of touch up painting of following BOS items:</p> <p>Air Preheaters, condensers, reheaters, coolers, sulphur pit ejectors, Degassing contactors, KO (Knockout) drums, condenser seal pots, waste heat exchanger (WHE) steam drum, WHE mud drum, converters, pumps (Vertical and horizontal both), Chain Pulley Block, Hand Trolley, Scissor Trolley, FDA and FPS package, control valves, on-off valves, de superheater, PSVs etc.</p>	MT	1250			36.7395913%
4	<p>Incinerator Stack Fabrication, welding, radiography, PWHT at site: Testing and commissioning of Incinerator stack including Fabrication, welding, radiography, touch up painting (Approx 71Mtr Height) as per TCC</p> <p>Note: 1. Fabrication, welding, touch up painting shall be carried out in horizontal position at site as per details given in TCC. 2. Erection shall be carried out as a single piece as per TCC.</p>	MT	200			11.7432912%
	Total Cost (Excluding Taxes)					100.00%

Section A3-Price Bid Format:: Contro Trace Works						
Sl No	Description	UOM	Qty	Unit Rate In Rs.	Total amount In Rs.	Weightage %
1	Installation, testing, and commissioning of Contro Trace® bolt on heating system as per BHEL approved drawings, instructions of BHEL site engineer and under supervision of contro trace material supplier	Inch Meter	15000			100%

Section A4-Price Bid Format: Insulation Works						
SI No	Description	UOM	Qty	Unit Rate In Rs.	Total Amount In Rs.	Weightage %
1	Installation, testing and commissioning of Insulation and dismantling of existing insulation, steam tracing pipelines.					
1.1	Installation of insulation (This is inclusive of the mineral wool, , insulation auxiliaries and consumables)	MT	120			50.7810350%
1.2	Installation of Aluminium cladding including all hardware	MT	80			49.2189650%
	Total (Excl taxes)					100.00%

Section-A6_Price Bid Format:: Structural steel and associated works								
SL. No.	MSR ST.No.	Item Description	UOM	QTY.	Unit Rate	Total Amount	Weightage %	
1	215	Dismantling concrete work for all types of structures at all levels including stacking of servicable material to a lead of 500 m and disposal of unservicable material upto a lead of 2 km, cutting of reinforcement, labour, equipment, safety precautions etc all complete as per drawings, specification and instructions of engineer in charge.						
2	a	Plain cement concrete of all grades	CUM	10			0.0186349%	
3	b	Reinforced cement concrete of all grades	CUM	50			0.1351153%	
4	800	GROUTING: Grouting including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, roughening surface, cleaning, ramming, curing etc. at all level , drawings and as directed by engineer - in - charge.						
5	802	Providing & grouting of pocket holes, pipe sleeves under base plates, machinery, pipe supporting structures etc. with mix 1:1 (1 cement :1 sand) using non shrink admixture etc. all Complete.	CUM	1			0.0270298%	
6	803	Providing & grouting of pocket holes, pipe sleeves and under base plate of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with mix 1:1:2 (1 cement : 1 coarse sand : 2 aggregate of 6 mm down graded stonechips) using non shrink admixture as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning the pocket by compressed air shall be in the scope of the contractor).	CUM	1			0.0253655%	
7	804	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing etc. all complete with ConbextraGP-1 or equivalent as per specification, drawing and direction of engineer-in-charge. (Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	4			0.2434286%	
8	805	Providing & grouting of pocket holes, pipe sleeves and under base plates of structural steel work/ machinery/ pipe supporting structures including roughening of surface, cleaning, ramming, curing, etc. all complete with Conbextra GP-2 or equivalent as per specification, drawing and direction of engineer-in-charge.(Cost of all material and cleaning of the pockets by compressed air shall be in the scope of the contractor).	CUM	2			0.1311372%	
9	1500	ROOFING / SIDE CLADDING: Roofing / side cladding work including all labour, material (unless otherwise specified in BOQ/contract specification), equipment, transportation, handling, scaffolding, laps, hooks, washers, corner pieces etc. at all level as per specification, drawings and as directed by engineer - in - charge.					0.0000000%	
10	1504-A	Designing, providing and fixing External sheet of Permanent colour coated metal cladding with troughed M.S. sheets of 0.8mm bare metal thickness having minimum yield strength 250 MPa and zinc-aluminium alloy coating not less than 275 gm/sqm total on both sides including fixing to supports / rails by concealed fixing system, corrosion resistant self tapping / self drilling type fasteners with suitable cap, flashing etc. all complete. The exposed face of the sheet shall be permanently colour coated with Polyfluro Vinyl Coating (PVF2) of minimum dry film thickness (DFT) 20 microns over suitable primer. Inner face of the sheet shall be provided with suitable pre-coating of minimum DFT 7 microns over suitable primer. The permanent colour coated sheet shall meet the general requirements of IS : 14246 and shall conform to class 3 for the durability.	Sqm	20			0.0431830%	
11	2300	STRUCTURAL WORKS: Structural steel works including all labour, material (unless otherwise specified in BOQ/contract specification), equipments unless otherwise specified, transportation, handling etc. at all level as per specification, drawings and as directed by engineer - in - charge.						
12	2301-A	Supply, Fabrication,erection and alignment of structural steel of Grade E250 quality BR / B0 rolled section / built up section / combination of both conforming to IS:2062, pipes of grade Yst 310 conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052, mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc including 2 coats of red oxide zinc-chromate primer (one coat at shop and one coat after erection), connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating (min preheat and interpass temperature of 20o C for welding over 20 mm and upto 40 mm & 66o C for welding over 40 mm and upto 63 mm & 110o C for thickness over 63 mm & use of low hydrogen/ radiogenic electrodes), post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, ectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touchup painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete. Including appointment of a seperate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL.	MT	100				10.4236728%

SL. No.	MSR ST.No.	Item Description	UOM	QTY.	Unit Rate	Total Amount	Weightage %	
13	2301-B	Supply, Fabrication, erection and alignment of structural steel of tubular/ hollow steel sections shall be of grade Yst 310 conforming to IS:1161 (for circular hollow sections (chs)) & conforming to IS:4923 (for rectangular hollow sections (rhs)/square hollow sections (shs)), mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc including 2 coats of red oxide zinc-chromate primer (one coat at shop and one coat after erection), connection design & preparation of fabrication drgs, collection of steel from stores, fabrication, straightening, cutting, bending, rolling, grinding, machining, drilling, welding, electrodes and other consumables, alignment, erection bolts & nuts (weight of erection bolts, nuts and welds not payable), assembly, edge preparation, preheating (min preheat and interpass temperature of 200 C for welding over 20 mm and upto 40 mm & 660 C for welding over 40 mm and upto 63 mm & 1100 C for thickness over 63 mm & use of low hydrogen/ radiogenic electrodes), post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing, erection scheme, protection against damage in transit, stability of structures, installation of temporary structures, setting column bases, surface preparation by means of manual or mechanical power tools as per IS:1477 part 1, touchup painting, rectification, dismantling and removal of all temporary structures (weight of temporary structures not payable), return of surplus / waste steel materials to store etc all complete. Including appointment of a separate agency, approved by BHEL, for review and approval of fabrication drgs, in consultation with BHEL.	MT	20				2.0847346%
14	2301-C	Taking delivery of structural elements from BHEL stores / store yard, loading, transportation, unloading, Erection and alignment of structural steel of Grade E250 quality BR / B0 rolled section / built up section / combination of both conforming to IS:2062, pipes of grade Yst 310 conforming to IS:1161/ IS:1239, chequered plate conforming to IS: 3052, mild steel rounds, monorails, stays, safety chains, ladders, MS grating etc. in columns, beams, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, chequered plate flooring, decking and seal plates, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails etc all complete for all levels, as specified and directed.	MT	1300			29.1074555%	
15	2302-A	Extra over ST NO. 2301-A & 2301-B for blast cleaning of steel structures to near white metal surface (Sa 2 1/2) and Two component Inorganic Zinc Silicate coating of minimum 75 micron (DFT) at shop, instead of primer coat of red oxide zinc-chromate, including touch-up painting etc all complete.	MT	120			1.2475510%	
16	2305-A	Providing and applying High Build Epoxy finish coating cured with polyamine hardener of 150 micron at shop and two component Acrylic – Polyurethane finish paint (35 micron at shop & 40 micron at field) over approved make over primer and shade to achieve an even shade (Total DFT 300 micron) including protection and cleaning, scaffolding etc. all complete as per Sl.no. 1.2 table-01 of 080557C-000-JSD-2300-001_C.	MT	120			0.7104353%	
17	2305-B	Providing and applying two component Acrylic – Polyurethane finish paint (40 micron at field) over already painted surface (Total DFT 260 micron) to achieve an even shade (Total DFT 300 micron) including protection and cleaning, scaffolding etc. all complete as per Sl.no. 1.2 table-01 of 080557C-000-JSD-2300-001_C.	MT	1300			4.1047374%	
18	2307	Supplying, fabrication, erection and alignment of factory made electroforged galvanised grating units with mild steel having minimum galvanisation conforming to IS:2062 in flooring, platforms, drain and trench covers, walkways, passages, staircases with edge binding strips and anti-skid nosing in treads etc. including fixing clamps, fittings, fixtures, all taxes, duties, packing, grinding, drilling, welding, edge preparation, etc. all complete.						
19	b	Minimum galvanisation of 900 g/sqm	MT	175			34.7194457%	
20	2312-A	Providing and fixing in positing of High Strength Structural Steel Bolts of Property Class 8.8 (minimum) conforming to IS:3757 & IS:4000 up to and inclusive of 39 mm diameter and upto 300 mm long, Hexagonal Nuts conforming to IS:6649 and Washers conforming to IS:6649. All Bolts, Nuts and Washers shall be Hot Dip Galvanized shall conform to IS: 4759 for structural steel work etc all complete.	KG	21000			4.8169363%	
21	2312-B	Providing and fixing in positing of High Strength Structural Steel Bolts of Property Class 10.9 conforming to IS:3757 & IS:4000 up to and inclusive of 39 mm diameter and upto 300 mm long, Hexagonal Nuts conforming to IS:6649 and Washers conforming to IS:6649. All Bolts, Nuts and Washers shall be Hot Dip Galvanized shall conform to IS: 4759 for structural steel work etc all complete.	KG	200			0.0504631%	
22	2313	Dismantling of steel structure, lowering of material and carriage of the dismantled material up to field fabrication shop / projects storage including temporary dismantling, cutting, re-welding, supporting, and restoring to correct position all temporarily dismantled members, re- alignment of all adjacent connected members to their correct positions (weight of such adjacent members and temporarily dismantled members not payable), scaffolding, staging, tools & tackles, gas cutting, welding, consumables etc all complete.	MT	50			0.6570902%	

SL. No.	MSR ST.No.	Item Description	UOM	QTY.	Unit Rate	Total Amount	Weightage %
23	2313-A	Dismantling GI/asbestos/translucent sheets, ridges, gutters etc. (taking all necessary safety precautions) in barricading, roofings and wall claddings, including supply of all tools & tackles, necessary scaffolding, consumables, cutting (by flame or saw) of fixing hooks, transporting and stacking the serviceable materials, cleaning the site and disposal of the unserviceable material to spoil heaps anywhere within the plant boundary, all complete for all levels, as specified and directed.	SQM	2950			0.6369488%
24	2314	Addition to, alterations in and/or modification of "Erection Marks" including cutting of parts, gauging of welds, cutting, grinding, fabrication, welding, drilling holes, straightening, removal of bends, raising to the required level, painting, transportation, return of unutilised steel pieces to the project store, temporarily dismantling, cutting, re-welding, supporting and restoring to correct position of all the temporarily dismantled members, realignment of adjacent connected members (weight of such temporarily dismantled and adjacent members not payable) etc all complete for the following:					
25	a	In erected position	MT	50			1.5682321%
26	b	In fabrication yard	MT	25			0.6681617%
27	2322	Supply, fabrication and fixing of GI pipe hand railing (1000 mm high) of 32 mm/40 mm dia (Medium Grade) including transportation, loading/unloading, painting etc. all complete as per specifications.	MT	50			8.5802411%
		Total (Excluding Taxes)					100.00%

Section B1-Schedule of Quantity: Mechanical Tie-In Works							
SI No	SI No	Description	UOM	Qty	Unit Rate	Amount	Weightage %
A	1	Receipt from BHEL store, transportation to site, Fabrication, erection, welding, radiography, painting of the following piping including pipe fittings and structures as per BHEL site engineer's instructions and technical specifications:					
1	1.1	CS Non IBR	MT	16.00			9.3682790%
2	1.2	CS IBR	MT	12.00			8.1569756%
3	1.3	CS- NACE	MT	23.00			14.1402461%
4	1.4	CS-NACE+HIC	MT	4.00			2.5762767%
5	1.5	SS	MT	1.50			1.9460095%
6	1.6	Valves	MT	40.00			23.4206974%
	1.7	Structures	MT	6.00			1.6857577%
B	2	Installation, testing and commissioning of Insulation and dismantling of existing insulation, steam tracing pipelines.					
1	2.1	Removal, disposal of existing piping insulation as per BHEL/ IOCL instructions (This is inclusive of the existing mineral wool , Cladding ,insulation auxiliaries)	MT	40			14.1309321%
	2.2	Removal, disposal of existing steam tracing piping as per BHEL/ IOCL instructions	MT	25			7.3189680%

SI No	SI No	Description	UOM	Qty	Unit Rate	Amount	Weightage %	
2	2.3	Installation of insulation (This is inclusive of the mineral wool, , insulation auxiliaries and consumables)	MT	15			4.3189933%	
3	2.4	Installation of Aluminium cladding including all hardware	MT	25			10.4653430%	
	3	Supply, erection, testing and commissioning of the following gate valves:						
	3.1	Size: 2" , VMS : 513 FE	Nos	2			0.4587233%	
	3.2	Size: 3" , VMS : 513 FE	Nos	3			1.3196258%	
	3.3	Size: 4" , VMS : 513 FE	Nos	1			0.6931726%	
		Total (Excl. taxes)					100.00%	

Section B2-Schedule of quantity:: Contro Trace Works						
SI No	Description	UOM	Qty	Unit Rate	Amount	Weightage%
1	Installation, testing, and commissioning of contro trace bolt on heating system as per BHEL approved drawings, instructions of BHEL site engineer and under supervision of contro trace material supplier	Inch Meter	35000			100%
	Total (Excl. taxes)					100%