

BHEL:PS-WR
BHE/PW/PUR/KNT-SSH/620
PRICE BID-PART-II (VOL- II)

BOQ FOR CONSTRUCTION OF CLOSED SHED (60M X 15M) AND SEMI CLOSED STORAGE(85M X 10M) SHED AT NTPC KORBA						
RATE SCHEDULE, SECTION - A						
<u>CONSTRUCTION OF CLOSED (60MX15M) - 1 NOS. (NEW) & SEMI CLOSED STORAGE SHED (85X10M TO BE DISMANTLED & BROUGHT TO SITE) -1NO. AT NTPC KORBA</u>						
SL.NO.	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN RS(FIGURE)	RATE IN RS(WORDS)	AMOUNT IN RS
1(A)	A) EARTH WORK EXCAVATION FROM (ZERO) 0 TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT HARD ROCK AND SOFT ROCK) FOR FOUNDATION COLUMNS, RAMPS ETC., SPREADING THE EARTH UNIFORMLY AROUND THE STORE AREA WITHIN THE PROJECT BOUNDARY AS DIRECTED BY BHEL ENGINEER AND INCLUDING DISPOSAL OF SURPLUS EARTH (IF ANY) INCLUDING DEWATERING WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M ³	650			
1(B)	A) EARTH WORK EXCAVATION FROM (ZERO) 0 TO 2 M DEPTH IN HARD ROCK AND SOFT ROCK (BY CHIESELING OR CONTROLLED BLASTING) FOR FOUNDATION COLUMNS, RAMPS ETC., SPREADING THE EARTH UNIFORMLY AROUND STORE AREA WITHIN THE PROJECT BOUNDARY AS DIRECTED BY BHEL ENGINEER AND INCLUDING DISPOSAL OF SURPLUS EARTH (IF ANY) INCLUDING DEWATERING WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	M ³	350			
2	BACK FILLING WITH EXCAVATION SOIL GENERATED FROM WORK THE FOUNDATION AND PLINTH IN LAYERS NOT EXCEEDING 15 CM THICKNESS INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND AS INSTRUCTED BY BHEL ENGINEER.	M ³	550			
3	PROVIDING STONE SOLING OF MIN. 230 MM THICK BELOW COLUMN FOUNDATION, FLOOR OF CLOSED & SEMI CLOSED SHED INCLUDING MURRUM PACKING, WATERING & COMPACTION	M ³	570			
4	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING 40MM & DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR FOUNDATION, FLOORING, ETC. INCLUDING SHUTTERING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	M ³	235			

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5	PROVIDING AND LAYING RCC OF MIX 1:2:4 USING 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK AND CENTERING AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS FOR FOUNDATION, COLUMNS, BEAMS ETC., AT ALL ELEVATIONS AND LEVELS.	M ³	155			
6	PROVIDING DPC WITH CC 1:2:4 50MM THICK INCLUDING BITUMEN COATING AS PER STANDARD PRACTICE AND SPECIFICATIONS.	M ²	136			
7	PROVIDING AND FIXING IPS FLOORING 40MM THICK WITH CEMENT CONCRETE 1:2:4 AS PER STANDARD PRACTICE IN PANELS OF SIZE NOT EXCEEDING 2.0x2.0 M SQ. BY PROVIDING, FIXING GLASS STRIPS FOR FINAL FLOORING IN CLOSED SHEDS ONLY	M ²	1750			
8	PROVIDING AND FIXING REINFORCEMENT INCLUDING CUTTING, BENDING AND FABRICATION OF REINFORCEMENT USING HIGH TENSILE TOR STEEL AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL LEADS, LIFT AND MATERIALS, LABOUR AND MS BINDING WIRE 18/20 GAUGE ETC. COMPLETE.	MT	15			
9	SUPPLY, FABRICATION, TRANSPORTATION, DELIVERY AT SITE AND ERECTION, INSTALLATION AND ALIGNMENT OF MS FOUNDATION BOLTS OF REQUIRED DIAMETER & LENGTH, ASSEMBLY IN CONCRETE ALONG WITH NUTS, LOCKNUTS, WASHERS, ANCHOR PLATES, STIFFENER PLATES, PROTECTIVE TAPES ETC. FOR COLUMNS INCLUDING TEMPLATES WHEREVER NECESSARY ETC. ALL COMPLETE AS PER SPECIFICATIONS AND DIRECTED BY THE ENGINEER.	Kg	300			
10	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING LOCALLY AVAILABLE CLAY BURNT BRICKS/ASH BRICKS AS PER DRAWING FOR FOUNDATION, WALL ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING ETC. COMPLETE AND AS DIRECTED BY ENGINEER AT ALL ELEVATIONS AND LEVELS INCLUDING RAKING OUT JOINTS, CURING ETC. COMPLETE EXCLUDING PLASTERING & PAINTING.	M ³	200			

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11	DESIGN, MANUFACTURE, SUPPLY AND ERECTION OF TUBULAR TRUSSES , PURLINS IN NEW CLOSED STORAGE SHEDS SPACED GENERALLY @ 1.4 M CENTRE TO CENTRE TO SUPPORT ROOFING WITH AC SHEETS AND WIND TIES TO BE PROVIDED ABOVE SHEETS AND PROVIDING AND FIXING BASE PLATES WITH HOLDING DOWN BOLTS ON RCC COLUMNS , GUSSETS, RIBS, PINS, SPLICES ETC. AS REQUIRED INCLUDING TRANSPORT, LOADING, UNLOADING CHARGES FROM FABRICATION SHOP TO SITE ETC. COMPLETE. DRAWING ATTACHED WITH TENDER IS INDICATIVE ONLY & DESIGN HAS TO BE OBTAINED FOR TRUSS BEFORE FABRICATION, DULY APPROVED BY BHEL. RATE IS INCLUDING ALL STEEL SECTIONS, FIXING IN POSITION, LABOUR CHARGES AND COST OF RED OXIDE PRIMER AT FACTORY AND TWO COATS OF SYNTHETIC ENAMEL PAINTS (OVER PRIMER COAT OF RED OXIDE) OF APPROVED COLOUR AND QUALITY (ASIAN MAKE OR EQUIVALENT) AT SITE.	MT	14.50			
12	DISMANTLING, TRANSPORTATION AND RE ERECTION OF STRUCTURAL SEMI-CLOSED SHED					
	DISMENTALING THE EXISTING STRUCTURAL STORE SHEDS (DISMENTALABLE TYPE) OF SIZE 85MX10M PRESENTLY AT BHEL SITE NTPC, RIHAND (U.P) NEAR VINDYACHAL, CONSISTING OF STEEL ROLLED SECTION (BOLTED COLUMNS), TUBULAR ROOF TRUSS , TIE MEMBERS WITH AC SHEET ROOFING & TRANSPORTATING THE SAME BY ROAD BY MEANS OF TRUCK /TRAILLARS FROM RIHAND TO BHEL SITE NTPC KORBA (C.G.) , ASSEMBLY, ERECTION OF THE SAME AT NTPC KORBA SITE .CONTRACTOR SHALL HAVE TO PAY OCTROI CHARGES IF APPLICABLE AT CG BORDER WHICH SHALL BE REIMBURSED BY BHEL AS PER ACTUAL ON PRODUCTION OF DOCUMENTARY PROOF.(contd.)					

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SL.NO.	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN RS(FIGURE)	RATE IN RS(WORDS)	AMOUNT IN RS
(contd.). CONTRACTOR HAS ALSO TO TAKE NECESSARY GATE PASSES AT SITE AS WELL AS ROAD PERMITS ETC IF REQUIRED . BEFORE DISMENTALING NECESSARY MATCH MARKING BY WHITE/YELLOW PAINT TO BE MADE ON STRUCTURES TO FACILITATE THE REERECTION OF SHED AT NEW LOCATION. CARE TO BE TAKEN FOR SMALL HARDWARE ITEMS LIKE NUTS, BOLTS, WASHERS & TO BE PACKED SEPERATELY IN A STEEL/WOODEN LOCKABLE BOX ARRANGED BY CONTRACTOR. CONTRACTOR TO TAKE DUE CARE WHILE DISMENTALING THE SHED TO MINIMISE THE DAMAGES OF THE STRUCTUIRES/ITEMS, AC SHEETS. RATE SHALL BE INCLUSIVE OF ALL REQUIRED T & P , MANPOWER ETC					
(A)	DISMANTLING OF STRUCTURAL STEEL MEMBERS, FITTINGS & FIXTURES ETC. AS ABOVE AT RIHAND SITE , SORTENING AND STACKING .	MT	34			
(B)	DISMANTLING OF AC SHEETS WITH 'J' HOOKS, NUTS, BOLTS, WAHSERS ETC.	SQM	960			
(C)	LOADING, TRANSPORTATION OF DISMANTLED STRUCTURE AND OTHER RELATED ITEMS INCLUDING USABLE SELECTED AC SHEETS (UNDER ITEM 12A & 12B ABOVE TO BHEL SITE NTPC KORBA, UNLOADING & STACKING AS PER THE INSTRUCTION OF BHEL ENGINEER	LS	1			
(D)	ASSEMBLY, ERECTION OF ABOVE COLUMNS, BRACINGS , TRUSSES, PURLINS, CLADDING RUNNERS ETC. INCLUDING MINOR MODIFICATION WHICH MAY INVOLVE CORRECTION OF BASE PLATE, STRAIGHTENING OF STRUCTURAL MEMBER BY MEANS OF CUTTING, WELDING, HEATING ETC.	MT	34			
(E)	FIXING OF OLD SELECTED AC CORRUGATED SHEETS & RIDGE CAPS FOR ROOFING/SIDE CLADDING USING OLD J OR L HOOKS/WASHERS, NUTS & BOLTS INCLDING CLEANING OF RUST ETC.AT BHEL NTPC SITE KORBA	SQM	500			
(F)	SUPPLY & FIXING OF HARDWARES LIKE NUTS, BOLTS, WASHERS ETC OF REQUIRED SIZES.	KG	100			

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SL.NO.	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN RS(FIGURE)	RATE IN RS(WORDS)	AMOUNT IN RS
(G)	PAINTING 2 COAT WITH SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR & BRAND (ASIAN OR EQUIVALENT) ON ALL OLD STRUCTURAL MEMBERS (TRUSS, PURLINES, TIE MEMBERS, COLUMNS ETC.) AFTER MANUALLY CLEANING THE SURFACE PROPERLY. RATE SHALL BE INCLUSIVE OF COST OF PAINT, ALL CONSUMABLES, LABOURSS, SCAFFOLDING ETC. COMPLETE	MT	34			
13 (A)	PROVIDING AND FIXING 6/7MM THICK AC CORRUGATED SHEETS WITH RIDGE CAPS FOR ROOFING INCLUDING GALVANISED IRON J OR L HOOK BOLTS, GI IRON AND BITUMINOUS WASHERS, GI CRAMP BOLTS, NUTS ETC. COMPLETE, ALL AS PER LATEST IS 459, 3307 AND 730 IN CLOSED SHED AND IN PART OF SEMI-CLOSED STORAGE SHED	M ²	1515			
13 (B)	PROVIDING AND FIXING IN CLOSED STORAGE SHED TRANSLUCENT RMP/FRP SHEETS 1.5MM THICK OF APPROVED MAKE INCLUDING COST OF GI HOOKS/ J OR L BOLTS, NUTS, WASHERS, BITUMEN WASHERS ETC. COMPLETE SO AS TO MATCH WITH AC CORRUGATED SHEETS.	M2	70			
14	MANUFACTURE, SUPPLY AND FIXING IN CLOSED STORAGE SHED STEEL LOUVERED VENTILATORS INCLUDING FRAMES & IRON BARRED (GUARD BAR OF SQUARE SECTION @ 100 MM C/C) AND GLAZED WITH 4MM PLAIN GLASS AS PER STANDARD SPECIFICATIONS, RELEVANT IS CODE AND INSTRUCTIONS OF BHEL ENGINEER. THE COST SHALL BE INCLUSIVE OF ALL ACCESSORIES FITTINGS, HOLD FASTS, PAINTING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER ETC. COMPLETE.	M ²	8			
15	PROVIDING AND PLASTERING WITH CEMENT MORTAR 1:6 OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES ETC. AT ALL HEIGHTS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.					
15(A)	(i) EXTERNAL PLASTER 18MM THICK	M ²	900			
15(B)	(ii) INTERNAL PLASTER 12MM THICK	M ²	900			

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16	PROVIDING WHITE OR COLOUR WASH THREE COATS ON NEWLY PLASTERED SURFACE USING BEST SHELL LIME TO GIVE AN EVEN SHADE INCLUDING CLEANING AND BRUSHING OF WALLS AND PREPARING SURFACE IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE TO INCLUDE COST OF ALL MATERIALS INCLUDING COLOURING AGENT, APPROVED ADDESSIVE, SCAFFOLDING, BRUSH ETC. COMPLETE.	M ²	1525			
17	MANUFACTURE, SUPPLY AND FIXING OF MS ROLLING SHUTTERS AS PER I.S. SPECIFICATIONS, COMPLETE, MECHANICALLY OPERATED FROM IN AND OUTSIDE BOTH AS INSTRUCTED BY BHEL ENGINEER INCLUDING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY (ASIAN OR EQUIVALENT) OVER ONE COAT OF RED OXIDE PRIMER (COST SHALL BE INCLUSIVE OF ALL THE ABOVE COMPLETE).	M ²	18			
	TOTAL VALUE OF SECTION-A IN Rs.					

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SL.NO.	DESCRIPTION OF WORK	UNIT	QTY.	RATE IN RS(FIGURE)	RATE IN RS(WORDS)	AMOUNT IN RS
(RATE SCHEDULE SECTION- B)						
INTERNAL ELECTRIFICATION OF CLOSED (60MX15M) - 1 NOS. & SEMI CLOSED STORAGE SHED (85X10M) -1NO. AT NTPC KORBA(SECTION-B)						
1	Supplying & Installing Power Distribution Board complete with:	Set	1			
	1) Incoming MCB TPH 100 Amps. - 1 No. 2) Outgoing MCB TPH 32 Amps. - 2 Nos.. 3) RCCB DP 25/20 Amps. - 3Nos. 4) Outgoing MCB SP 6 Amps - 6Nos.					
	All RCCBs, MCBs shall be MDS/INDO KOPP make					
	Distribution Boards shall be SIEMENS / MDS / INDO KOPP make with internal busbars, internal wiring, 2 nos. earthing terminals, earth connections, including Glands, Lugs					
2	Providing & Fixing Aluminium Dispersive Luminaire enameled green and white with cast Aluminium flange and nipple suitable for use with GLS lamp, dome 12" diameter, with hanging bracket and 200W GLS lamp of Crompton or equivalent BAJAJ/PHILIPS make, complete.	Nos.	40			
3	Wiring with 2.5 sq mm ISI mark copper wire for above in PVC conduit along with GI earth wire inclusive of all material, labour etc. Complete	Per Point	40			
4	Supplying & Fixing Wall Mounting type LIGHTING PANELS, each with : (1) Incoming MCB TPN -32 Amps - 1No.	Sets.	2			
	(2) RCCB DP 32 Amps - 3Nos (3) MCB SP 6Amps - 20 Nos.					
	All MCBs and RCCBs shall be of MDS / INDO KOPP make					
	Lighting Panel shall be SIEMENS/MDS/INDO KOPP make with internal busbars, 2 nos. earthing terminals, earth connections, including Glands, Lugs & wiring from main DB.					
5	Providing Earth Pits with 2" dia., 2.5 Mtr. Long GI Pipes with flange and 8 SWG GI wire with Charcoal, Salt and as per IS 3043. Rate shall be inclusive of all material, labour etc. complete. A brick wall chamber with CI cover for all earth pits shall be provided.	NOS.	2			
	TOTAL VALUE OF SECTION- B IN Rs.					
	Total of section A & B IN RS					
	TOTAL IN WORDS (RS.....)					