

=====

TENDER SPECIFICATION

BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

FOR

“Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA”

PART- II - PRICE BID



Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northern Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar,
NOIDA – 201 301 (INDIA)

BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955



ISO 9001, ISO 14001,
OHSAS 18001 & SA 8000
certified company
SubContract and Purchase
Deptt.

Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northern Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301(INDIA)
Phone: 0091-0120- 2416278/ 2416407
Fax 091-0120-2416528
Email: bps@bhelsnr.co.in/ rb@bhelsnr.co.in

BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

IMPORTANT NOTE

PURCHASER OF THIS TENDER DOCUMENT IS ADVISED TO CHECK AND ENSURE COMPLETION OF ALL PAGES OF TENDER DOCUMENT AND REPORT ANY DISCREPANCY TIMELY FOR CORRECTIVE ACTION, IF ANY, TO THE ISSUING AUTHORITY BEFORE THE BIDS ARE SUBMITTED. ORIGINAL COPY OF TENDER DOCUMENT COMPLETE IN ALL RESPECTS MUST BE SUBMITTED BACK AS PART OF THE BID WITHOUT WHICH THE SAME IS LIABLE TO BE REJECTED BY BHEL.

THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

RATE SCHEDULE

Tender No.-: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

Job-: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

ITEM NUM	DESCRIPTION OF WORK	TOTAL VALUE 'A' IN INR (IN FIGURES AND WORDS)
1.0	TOTAL LUMSUM PRICE FOR "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"	
Notes:-		
1. The rates of individual item for the entire scope of work as define in BOQ shall be arrived as per Calulation defined in Annexure- 'D'		
2. The derived item rate will remain firm through out the contract period.		

Name -:

Place -:

Date-:

Signature of the Bidder With
Stamp

BOQ CUM RATE SCHEDULE

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No.: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
(A) CIVIL WORKS						
EARTH WORK/ SITE CLEARANCE/ ROAD WORK						
1	C1	EARTH WORK EXCAVATION FORM 0 (ZERO) TO 2 M DEPTH IN HARD ROCK (REQUIRING BLASTING) BY MECHANICAL MEANS (HYDRAULIC EXCAVATOR/ MANUAL MEANS FOR FOUNDATIONS, SEPTIC TANK, DRAINS, SOAK PIT, RAMPS ETC. AS DIRECTED BY BHEL ENGINEER , INCLUDING DRESSING OF SIDES AND RAMMING OF BOTTOMS, GETTING OUT THE EXCAVATED MATERIAL AND DISPOSAL OF SURPLUS EXCAVATED MATERIAL AS DIRECTED, WITHIN A LEAD OF 50 M INCLUDING DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	CUM	1866.00	7.42	
2	C2	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH FOR SOFT ROCK AND HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FOR FOUNDATIONS, SEPTIC TANK, SOAK PIT, RAMP ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M INCLUDING DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	CUM	297.00	4.25	
3	C3	EARTH WORK EXCAVATION FROM 0 (ZERO) TO 2 M DEPTH IN ALL KINDS OF SOIL (EXCEPT SOFT ROCK AND HARD ROCK) FOR FOUNDATIONS, SEPTIC TANK, DRAINS, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M INCLUDING DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	CUM	172.00	2.57	
4	C4	EARTH WORK EXCAVATION FROM 2.0M TO 4.0 M DEPTH IN IN HARD ROCK (REQUIRING BLASTING) BY MECHANICAL MEANS (HYDRAULIC EXCAVATOR / MANUAL MEANS FOR FOUNDATIONS, SEPTIC TANK, DRAINS, SOAK PIT, RAMPS ETC. AS DIRECTED BY BHEL ENGINEER, INCLUDING DRESSING OF SIDES AND RAMMING OF BOTTOMS, GETTING OUT THE EXCAVATED MATERIAL AND DISPOSAL OF SURPLUS EXCAVATED MATERIAL AS DIRECTED, WITHIN A LEAD OF 50 M INCLUDING DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	CUM	100.00	10.01	
5	C5	EARTH WORK EXCAVATION FROM 2.0M TO 4.0 M DEPTH IN ALL KINDS OF SOIL (EXCEPT HARD ROCK AND SOFT ROCK) FOR FOUNDATIONS, SEPTIC TANK, SOAK PIT, RAMPS ETC., AS DIRECTED BY BHEL ENGINEER INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M INCLUDING DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	CUM	55.00	3.47	
6	C6	EXCAVATION IN ALL KINDS OF SOIL INCLUDING SOFT & HARD ROCK (BY MANUAL CHISELING OR BY MECHANICAL MEANS BUT WITHOUT BLASTING) FROM 2 TO 4M DEPTH FOR SEPTIC TANK AND SOAK PIT, WHEREVER REQUIRED INCLUDING REMOVING THE EXCAVATED MATERIALS UP TO A DISTANCE OF 50M INCLUDING DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.	CUM	75.00	8.94	
7	C7	EXCAVATION /CUTTING OF EARTH / ROCK BEYOND INITIAL 250 MM THICK WHICH IS COVERED UNDER (ITEM CODE NO C9) BELOW IF REQUIRED AND SPREADING THE SAME IN LOW LYING AREA, WATERING, COMPACTION BY MEANS OF 10-12 MT CAPACITY POWER/VIBRO ROLLER FOR DEVELOPMENT OF OPEN STORAGE YARD AS PER INSTRUCTION OF BHEL ENGINEER.	CUM	625.00	2.57	
8	C8	EXCAVATION FOR ROADWAY IN ALL TYPES OF SOILS, SAND AND GRAVEL, SOFT MURAM OR SOFT ROCK / HARD ROCK INCLUDING DRESSING OF SECTION TO THE REQUIRED GRADE, CAMBER & SIDE SLOPES AND SPREADING OF SURPLUS EXCAVATED EARTH UNIFORMLY OVER THE SPECIFIED AREA FOR SITE LEVELING & DEVELOPMENT OF REQUIRED DEPTH TO MAINTAIN UNIFORM GROUND LEVEL AS DIRECTED BY THE BHEL & CONSOLIDATION OF THE SURFACE INCLUDING SUB-BASE BY ROLLING THE SURFACE WITH 8 - 12 MT CAPACITY POWER/VIBRO ROLLER, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE.AS PER DRAWINGS & SPECIFICATIONS.	CUM	4771.00	2.57	
9	C9	SUB GRADE PREPARATION: CUTTING & DISPOSAL OF GRASS, VEGETATIONS, BUSHES, TREES (GIRTH LESS THAN 300MM), LEVELLING, WATERING AND CONSOLIDATION (90% OF PROCTOR DENSITY) BY MEANS OF 10-12 MT CAPACITY POWER/VIBRO ROLLER FOR SUB BASE PREPARATION. THIS WILL INCLUDE AVERAGE CUTTING & FILLING UP TO ± 250MM THICK, GRADING THE AREA WITH PROPER SLOPE FOR DRAINING OUT THE RAIN WATER WITH ALL T&P, LABOURS, MATERIALS, DEWATERING (IF REQUIRED) ETC. COMPLETE. FOR DEVELOPMENT OF OPEN STORAGE YARD / OFFICE INCLUDING DISPOSAL OF UNUSABLE MATERIAL UPTO THE LEAD OF 1 KM.	SQM	25750.00	1.27	
10	C10	SUB GRADE PREPARATION: CUTTING LEVELLING, FILLING WITH EXCAVATED EARTH / ROCK, WATERING AND CONSOLIDATION FOR PLINTH PROTECTION AREA AND WHEREVER REQUIRED BEFORE LAYING THE PCC WITH ALL T&P, LABOURS, MATERIALS ETC. COMPLETE.	SQM	361.00	1.27	
11	C11	REMOVAL OF WILD GROWTH, BUSHES VEGETATIONS AND DISPOSAL AS PER INSTRUCTION WITHIN THE PLANT BOUNDARY (SIZE OF STEM FROM 150MM TO 600MM DIA.)	NOS	17.00	3.08	
12	C12	DISPOSAL OF EXCAVATED EARTH / ROCK (NOT SUITABLE FOR BACK FILLING) BEYOND INITIAL LEAD OF 50M AND UPTO A MAXIMUM LEAD OF 2 KM OR PART THEREOF INCLUDING LOADING, UNLOADING, TRANSPORTING AND SPREADING AS PER DIRECTION OF BHEL ENGINEER .	CUM	3134.00	1.99	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No.-: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
13	C13	FILLING OF LOW LYING AREA WITH THE EXCAVATED EARTH / ROCK INCLUDING BREAKING OF ROCK TO REQUIRED SIZE AVAILABLE WITHIN 5 KM LEAD IN LAYERS NOT EXCEEDING 300 MM THICK AND FILLING OF VOIDS WITH MANUAL / MECHANICALLY BROKEN METAL / ROCK OF SIZE 40-60 MM AND STONE SCREENING. PACKING WITH MURRUM / DUST/GOOD EARTH ETC, SPREADING, ROLLING AND COMPACTION INCLUDING WATERING, WITH 8-10 MT CAPACITY ROAD ROLLER. THIS INCLUDES COST OF ALL MATERIALS , CARRAIGE OF MATERIALS, ALL LABOURS AND T&P WITH GOVT. TAXES & ROYALITES IF ANY COMPLETE AS DIRECTED BY BHEL ENGINEER.	CUM	15000.00	9.92	
14	C14	BACKFILLING OF FOUNDATION , THE SIDES OF DRAINS AND CULVERTS, FLOORS AND PLINTH IN LAYERS NOT EXCEEDING 150MM THICK. INCLUDING WATERING AND CONSOLIDATING ETC. COMPLETE AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.				
A	(A)	WITH GOOD EXCAVATED SOIL/ ROCK AVAILABLE FROM THE EARTH WORK.	CUM	3812.00	1.76	
B	(B)	WITH GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) BELOW FOUNDATIONS, FLOORING, AND RAMP ETC AS PER STANDARD SPECIFICATION. RELEVANT DRAWINGS AND INSTRUCTED BY BHEL ENGINEER INCLUDING ROYALTY. CONTRACTOR HAS TO SUBMIT ROYALTY CERTIFICATE FROM CONCERNED STATE GOVT. MINING DEPARTMENT	CUM	263.00	12.97	
C	(C)	WITH 300MM COMPACTED THICK GRANULAR MURUM IN LAYERS (THICKNESS OF EACH LAYER SHOULD NOT EXCEED 150MM) IN SUB-BASE OF ROAD BELOW SOLING, MONSOON YARD DEVELOPMENT ETC. COMPLETE INCLUDING WATERING AND COMPACTION WITH 10-12 T POWER ROLLER COMPLETE. RATE SHALL INCLUDE TRANSPORTATION, ROYALTY, DEWATERING (BOTH GROUND WATER AS WELL AS RAIN WATER) AND KEEP THE AREA DRY TILL COMPLETION OF ALL THE WORKS, LABOURS, MATERIALS AND REQUIRED T&Ps ETC. COMPLETE AS PER STANDARD SPECIFICATION, RELEVANT DRAWINGS AND INSTRUCTED BY BHEL ENGINEER. CONTRACTOR HAS TO SUBMIT ROYALTY CERTIFICATE FROM CONCERNED STATE GOVT. MINING DEPARTMENT	CUM	739.00	21.19	
D	(D)	WITH GOOD EARTH BROUGHT FROM OUTSIDE FROM CONTRACTOR'S OWN SOURCE INCLUDING ROYALTY ETC.	CUM	462.00	7.10	
E	(E)	PROVIDING & FILLING IN SOAK PIT WITH BRICK BATS 40-80MM INCLUDING SAND PACKING ETC. COMPLETE, AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER.	CUM	23.00	12.15	
F	(F)	PROVIDING STONE SOLING OF REQUIRED THICKNESS AS PER DRAWING BELOW FLOORING, RAMP, COLUMN FOUNDATIONS OF STORAGE SHED ETC. BY USING 80 MM SIZE HARD BROKEN BLACK GRANITE/ QUARTZITE/ GNEISS/ TRAP STONE METAL INCLUDING GRANULAR MURRUM PACKING, WATERING & COMPACTION ETC COMPLETE.AS PER STANDARD SPECIFICATION AND INSTRUCTED BY BHEL ENGINEER	CUM	316.00	25.51	
G	(G)	PROVIDING AND LAYING SOLING 230 MM COMPACTED THICK WITH 150 -200 MM THICK BOULDER SIZE AND FILLING OF VOIDS WITH HAND BROKEN METAL OF SIZE 40-60 MM , SPREADING & PACKING MURRUM , ROLLING AND COMPACTION INCLUDING WATERING, WITH 8-10 MT CAPACITY ROAD ROLLER.	CUM	694.00	25.51	
H	(H)	PROVIDING 150 MM COMPACTED THICK WATER BOUND MACADAM (WBM) IN TWO LAYERS OF EACH 75 MM. WITH 40MM TO 60MM METAL (STONE AGGREGATE) INCLUDING SUPPLYING AND SPREADING GRAVEL/MURRUM OVER THE SOLING/CONSOLIDATED BASE, COMPACTING THE SAME WITH POWER ROLLER INCLUDING NECESSARY LABOUR, WATERING, MATERIALS ETC. COMPLETE, ALL AS PER RELEVANT SPECIFICATIONS AND DIRECTIONS OF BHEL ENGINEER (RATE SHALL BE INCLUSIVE OF ALL LABOUR, MATERIALS ETC., COMPLETE).	CUM	524.00	29.14	
		PCC:				
15	C15	PROVIDING AND LAYING OF PLAIN CEMENT CONCRETE OF MIX 1:4:8 USING OPC GRADE 43/53 OR EQUIVALENT PPC, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR FOUNDATION, FLOORING, COLUMN ETC. INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	CUM	469.00	67.96	
16	C16	PROVIDING AND LAYING OF 100 MM THICK PLAIN CEMENT CONCRETE OF MIX 1:3:6 USING OPC GRADE 43/53 OR EQUIVALENT PPC, 20 MM DOWN SIZE HARD BROKEN GRANITE STONE JELLY FOR PLINTH PROTECTION WITH TROWEL FINISH INCLUDING SHUTTERING, FINISHING, CURING, CONSOLIDATION ETC. COMPLETE AS PER STANDARD SPECIFICATIONS AND AS DIRECTED BY BHEL ENGINEER.	CUM	47.00	88.55	
17	C17	PROVIDING AND LAYING OF RCC MIX 1:2:4 USING OPC GRADE 43/53 OR EQUIVALENT PPC, 20MM DOWN SIZE HARD BROKEN GRANITE STONE AGGREGATE INCLUDING MECHANICAL MIXING, VIBRATION, CURING, FORM WORK & CENTERING AS PER DRAWING AND SPECIFICATION AND DIRECTED BY BHEL ENGINEER BUT EXCLUDING COST OF REINFORCEMENTS.	CUM	593.00	88.55	
18	C18	PROVIDING PRECAST REINFORCED CONCRETE SLEEPER OF SIZE 300MM WIDE X150MM DEPTH X 1200MM LENGTH USING 1:2:4 CONCRETE MIX INCLUDING MOULDING AND REINFORCEMENT (2-10 MM DIA T&B AND STIRRUPS 8 MM @ C/C 250MM), PROVIDING AND FIXING OF LIFTING / HANDLING HOOKS AS DIRECTED BY BHEL ENGINEER.	EACH	1125.00	12.22	
19	C19	40MM THICK COPING OVER THE DRAIN WALL TOP USING MIX - 1:2:4	CUM	11.00	88.55	
20	C20	PROVIDING AND LAYING DPC (DAMP PROOF COURSE) 50MM THICK IN 1:2:4 CEMENT CONCRET LAYER USING OPC GRADE 43/53 OR EQUIVALENT PPC AND WITH 6MM DOWN AGGREGATE, INCLUDING FORM WORK, BITUMEN FELT USING CEMENT WITH WATER PROOFING COMPOUND ETC. COMPLETE REINFORCEMENT:	SQM	237.00	5.71	
21	C21	PROVIDING, CUTTING, BENDING AND FIXING IN POSITION REINFORCEMENT OF VARIOUS DIA, USING HIGH TENSILE TOR STEEL (Fe - 415/500) FOR FOUNDATIONS, COLUMNS, BEAMS, FLOORS, SUNSHED, SLAB ETC. AS PER DRAWING AND SPECIFICATION AND AS DIRECTED BY BHEL ENGINEER INCLUDING COST OF ALL MATERIALS, LEADS, LIFT, LABOURS, MS BINDING WIRE 18/20 GAUGE, TACK WELDING AND SUPPORTING IF REQUIRED COMPLETE.	MT	38.00	1152.77	
		BRICK WORK:				

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No.: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
22	C22	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, SUPER STRUCTURE, SEPTIC TANK, DRAIN, CULVERTS ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	CUM	837.00	92.31	
23	C23	PROVIDING BRICK WORK IN CM 1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL, SEPTIC TANK, DRAINS, CULVERTS ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, CURING , AT ALL ELEVATIONS AND LEVELS , RAKING OUT JOINTS ETC. COMPLETE AND AS DIRECTED BY ENGINEER . EXCLUDING PLASTERING & PAINTING.	CUM	327.00	88.82	
24	C24	PROVIDING HALF BRICK WORK PARTITION WALL IN CM 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC AND LOCALLY AVAILABLE BURNT CLAY BRICKS (MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC. INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, RAKING OUT JOINTS,CURING AS PER DRAWING AND DIRECTED BY BHEL ENGINEER.	SQM	38.00	11.23	
25	C25	PROVIDING HALF BRICK WORK FOR PARTITION WALL IN CM 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC AND FLY ASH LIME BRICKS (FAL - MIN STRENGTH 35 KG/CM ²) AS PER DRAWING AND SPECIFICATION FOR FOUNDATION, WALL ETC INCLUDING COST OF ALL MATERIALS, LABOUR, SCAFFOLDING, RAKING OUT JOINTS,CURING AS PER DRAWING AND DIRECTED BY BHEL ENGINEER.	SQM	17.00	11.23	
		STRUCTURAL STEEL WORK:				
26	C26	DESIGN, SUPPLY, FABRICATING AND ERECTION OF TUBULAR TRUSSES WITH TUBULAR POST & PURLINES (BY USING CLASS B, MEDIUM QUALITY PIPE) AS PER BHEL DRAWING WITH PPGI SHEETS AND WIND TIES (USING FLAT OF SIZE 40X5MM) TO BE PROVIDED ABOVE SHEETS AND PROVIDING & 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. RATE IS INCLUSIVE OF ALL MATERIALS, LOADING & UNLOADING, FABRICATION, FIXING IN POSITION, LABOUR CHARGES , T&Ps 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 AT SITE. HOLLOW TRUSS (OUTER MAIN FRAME WITH CENTER POST EXCEPT OTHER VERTICAL & CROSS BRACING/TUBES/CROSS STUD) SHALL BE PROVIDED ON BOTH SIDE OF GABLE END TO FIX THE PURLINS AND ROOFING MATERIAL.	MT	58.00	1276.72	
27	C27	DESIGN, SUPPLY, FABRICATING AND ERECTION OF STRUCTURAL STEEL STAGING (APPROX. Ht. 4.0M) FOR INSTALLATION OF PVC OVER HEAD WATER TANK (OHT) OF CAPACITY- 1000 LITRES AS PER BHEL DRAWING. RATE IS INCLUSIVE OF ALL MATERIALS, LOADING & UNLOADING, FABRICATION, FIXING IN POSITION, LABOUR CHARGES , T&Ps 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 AT SITE.	MT	3.00	1276.72	
28	C28	PROVIDING , SUPPLYING AND FIXING OF 20 GAUGE MS ROLLING SHUTTERS OF SIZE 5 M X 5 M (APPROX.) 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 OVER ONE COAT OF RED OXIDE PRIMER LOCKING ARRANGEMENT. RATE SHALL BE INCLUSIVE OF ALL THE ABOVE COMPLETE.	SQM	153.00	35.43	
		ROOFING:				
29	C29	PROVIDING AND FIXING 0.5MM THICK PERMANANTLY COLOUR COATED PROFILED GS SHEETS INCLUDING RIDGES AND HIPS OVER THE ROOF OF SHEDS / OFFICE AND SIDE CLADDING AS PER BHEL DRAWING INCLUDING GALVANISED IRON J OR L HOOK , BOLTS, BITUMINOUS WASHERS, GI CRAMP BOLTS, NUTS, SCAFFOLDING ETC. INCLUDING STEEL PRIMER AND 2 COATS OF APPROVED PAINT AT OVERLAPS AS PER TECHNICAL SPECIFICATIONS COMPLETE, ALL AS PER LATEST IS 459, 3307 AND 730.	SQM	3846.00	20.20	
30	C30	PROVIDING AND FIXING 0.5MM THICK PPGI SHEETS OVER THE LEAN TO ROOF OF TOILET/ PANTRY BLOCK AS PER BHEL DRAWING INCLUDING GALVANISED IRON J OR L HOOK , BOLTS, BITUMINOUS WASHERS, GI CRAMP BOLTS, NUTS SCAFFOLDING ETC. COMPLETE. ALL AS PER LATEST IS 459, 3307 AND 730.	SQM	150.00	10.84	
31	C31	PROVIDING AND FIXING OF TRANSLUCENT RMP/FRP (FIBRE GLASS REINFORCED PLASTIC) SHEETS - 2.00 MM THICK OF APPROVED MAKE INCLUDING COST OF GI J OR L HOOKS, BOLTS, NUTS, WASHERS, BITUMEN WASHERS,SCAFFOLDING ETC. COMPLETE SO AS TO MATCH WITH PPGI SHEETS FOR NATURAL LIGHTING.	SQM	201.00	11.63	
		CEILING:				
32	C32	PROVIDING AND FIXING OF FALSE CEILING OF 12.5 MM THICK TAPERED EDGE GYPSUM PLAIN BOARD CONFIRMING TO IS:2095 PART I WITH 4MM THICK OF APPROVED QUALITY AND DESIGN OF SIZE 600x600 MM PANELS WITH SQUARE EDGES SUPPORTED BY ANODISED ALUMINIUM FRAMES OF TEES 35x23.5x1.5 MM THICK AS MAIN MEMBER AND 19x23.5x1.5 MM TEES AS CROSS SUPPORTING MEMBERS AND WALL ANGLES OF 23.5x23.5x1.5MM. THE MAIN RUNNERS SHALL BE SUSPENDED FROM ROOF AT 1200 MM CENTRE TO CENTRE BY MEANS OF MS RODS WITH GI 'J' THREADED HOOK FOR ADJUSTMENTS. THE CROSS RUNNERS SHALL BE FIXED TO MAIN RUNNER TO FORM ' A ' GRID PATTERN OF 600x600MM AND PROVIDING 25 MM WIDE ALUMINIUM STRIP TEES OR MOULDED SECTIONS AT ALL JOINTS. THE RATE SHALL BE INCLUSIVE OF TWO COATS OF APPROVED OBD ON GYPSUM BOARD, SUPPLY & FIXING OF ALUMINIUM FRAME AND SCAFFOLDING ETC. COMPLETE.	SQM	764.00	13.95	
		DOORS & WINDOWS:		0.00		
33	C33	PROVIDING AND FIXING OF BEST QUALITY COUNTRY WOOD DOORS COMPRISING OF FRAME 95 X 70MM AND 38/40MM THICK FLUSH SHUTTERS OF SOLID CORE TYPE USING COMMERCIAL PLY INCLUDING HOLD FASTS, WIND APPLIANCES, HANDLES, TOWER BOLTS AND ALDROPS, MORTISE OR SUITABLE LOCKS ETC. AS PER THE STANDARD PRACTICE AND APPLYING TWO COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED SHADE & COLOR OVER A COAT OF PRIMER AS DIRECTED BY BHEL ENGINEER.	SQM	59.00	41.37	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No.: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
34	C34	PROVIDING AND FIXING OF BEST QUALITY PVC PANELLED DOORS OF THICKNESS 29MM, SINTEX/BAJAJ MAKE OR APPROVED EQUIVALENT FOR TOILETS INCLUDING ALL FITTINGS AND FIXTURES, MS ANGLE FRAME OF SIZE 40x40x6MM ETC. ALL COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.	SQM	12.00	44.03	
35	C35	PROVIDING AND FIXING OF 18 GAUGE M.S. SHEET DOOR WITH FRAME WORK 40 X 40 X 6 MM M.S. ANGLE INCLUDING LOCKING ARRANGEMENTS, HOLD FAST , APPLYING ANTICORROSSIVE PRIMER COAT OF RED LEAD PAINT AND 2 COATS OF SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR COMPLETE AS DIRECTED BY BHEL ENGINEER.	SQM	9.00	51.00	
36	C36	PROVIDING AND FIXING ALUMINIUM WORK FOR DOORS, WINDOWS AND PARTITIONS WITH EXTRUDED BUILT UP STANDARD TUBULAR SECTIONS/ APPROPRIATE Z SECTIONS AND OTHER SECTIONS OF APPROVED MAKE CONFORMING TO IS: 733 AND IS: 1285, FIXING WITH DASH FASTENERS OF REQUIRED DIA AND SIZE, INCLUDING HOLD FASTS, WIND APPLIANCES, TOWER BOLTS AND ALDROPS, MORTISE OR SUITABLE LOCKS, NECESSARY FILLING UP THE GAPS AT JUNCTIONS, I.E. AT TOP, BOTTOM AND SIDES WITH REQUIRED EPDM RUBBER/ NEOPRENE GASKET ETC. ALUMINIUM SECTIONS SHALL BE SMOOTH, RUST FREE, STRAIGHT, MITRED AND JOINTED MECHANICALLY WHEREVER REQUIRED INCLUDING CLEAT ANGLE, ALUMINIUM SNAP BEADING FOR GLAZING / PANELING, C.P. BRASS / STAINLESS STEEL SCREWS, ALL COMPLETE AS PER ARCHITECTURAL DRAWINGS AND THE DIRECTIONS OF BHEL ENGINEER. (ARCHITECTURAL DRAWING IS TO BE PREPARED & SUBMITTED FOR APPROVAL TO BHEL BY CONTRACTOR) (GLAZING AND PANELING TO BE PAID FOR SEPARATELY) :				
	(i)	Powder coated aluminium (minimum thickness of powder coating 50 micron)	KG	20.00	6.73	
37	C37	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of BHEL Engineer				
	(i)	With stainless steel cover plate minimum 1.25 mm thickness	NOS	10.00	35.02	
38	C38	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of BHEL Engineer				
	(i)	Powder coated minimum thickness 50 micron aluminium tubular handle bar	NOS	4.00	8.80	
39	C39	Providing and fixing glazing in aluminium door, window and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in charge . (Cost of aluminium snap beading shall be paid in basic item)				
	(i)	With TOUGHENED float glass panes of 8 mm thickness	SQM	10.00	21.97	
40	C40	SUPPLY FABRICATION, AND FIXING IN POSITION OF MS GATES WITH STRUCTURAL/TUBULAR STEEL FRAMES AS PER BHEL DRAWING INCLUDING COST OF FOUNDATION & POSTS, PAINTING TWO COATS BY SYNTHETIC ENAMEL PAINT OF APPROVED COLOUR AND QUALITY OVER ONE COAT OF RED OXIDE PRIMER. COST OF ALL MATERIALS, LABOUR, TRANSPORT ETC. COMPLETE.	MT	8.00	1276.72	
41	C41	SUPPLYING, MANUFACTURING AND FIXING IN POSITION OF STEEL WINDOWS AND 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.			#DIV/0!	
A	A)	STEEL WINDOWS	SQM	53.00	14.58	
B	B)	STEEL LOUVERED VENTILATORS :-	SQM	37.00	14.58	
42	C42	PROVIDING AND FIXING OF METALLIC DECORATIVE TYPE HEAVY DUTY PELMET ROD FOR DOORS AND WINDOWS. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC. AS APPROVED BY BHEL ENGINEER.	EACH	65.00	16.49	
43	C43	PROVIDING & FIXING OF WOODEN FRAME OF BEST QUALITY COUNTRY WOOD (2.5"x3.0") FOR INSTALLING PORTABLE 1.5T AIR CONDITIONER ON THE WALL OPENING , SO AS TO MAKE A FRAME OF INSIDE CLEAR DIMENSION (36"x27") / SUITABLE FOR INSTALLATION OF A.C. WITH COMPLETE FINISHING, PAINTING, HOLD FAST ETC. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR, MAKING GOOD THE DAMAGED SURFACE ETC. COMPLETE. AS APPROVED BY BHEL ENGINEER.	NOS	32.00	18.82	
		FLOORING:				
44	C44	PROVIDING AND FIXING OF IPS FLOORING 40MM THICK USING OPC GRADE 43/53 OR EQUIVALENT PPC WITH CEMENT CONCRETE 1:2:4 (USING 12 MM DOWN AGGREGATES) AS PER STANDARD PRACTICE IN PANELS OF SIZE NOT EXCEEDING 2.0 x 2.0 SQ.M BY PROVIDING, FIXING GLASS STRIPS.INCLUDING CURING & CLEANING.	SQM	2686.00	6.08	
45	C45	PROVIDING AND LAYING OF 5.5 MM THICK CERAMIC TILES OF REQUIRED SIZE LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC.TILES FROM REPUTED MANUFACTURER LIKE JONSON OR EQUIVALENT INCLUDING ALL MATERIALS COMPLETE AS PER STANDARD PRACTICE AND SPECIFICATION.				
	A)	(I) FLOORING- 600MMX600MM	SQM	400.00	14.46	
	B)	(II) FLOORING - 300MM X 300MM	SQM	127.00	14.46	
	C)	(III) SKIRTING - 300MM X 150MM	SQM	57.00	14.46	
46	C46	SUPPLYING AND FIXING OF WHITE GLAZED TILES OF REQUIRED SIZES LAID OVER THE BED OF CM - 1:4 (1 CEMENT & 4 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC . DADO IN TOILET & PANTRY ROOM UP TO 1.5 M ELEVATIONS INCLUDING PEREPARATION OF BASE LAYING UNDERBED, FINISHING AND ROUNDING CORNERS AND JUNCTIONS, CURING ETC. COMPLETE AS PER DRAWINGS AND SPECIFICATIONS.				
	A)	(I) FLOORING (5.0MM TO 6.0MM THICK OF SIZE 300MM X 300MM)	SQM	103.00	14.25	
	B)	(II) DADO (5MM TO 6MM THICK OF SIZE 150MM X 150MM) - 1.5M HEIGHT FROM FINISHED FLOOR LEVEL	SQM	132.00	13.76	
		FINISHING:				
47	C47	PROVIDING PLASTERING WITH CEMENT MORTAR -1:6 (1 CEMENT & 6 COARSE SAND) USING OPC GRADE 43/53 OR EQUIVALENT PPC OVER BOTH INTERNAL AND EXTERNAL FACES OF BRICKWORK AND CONCRETE SURFACES, PARTITION WALLS ETC. AT ALL LEVELS INCLUDING PREPARING THE SURFACE, RAKING JOINTS, SCAFFOLDING, CURING, COST OF ALL MATERIALS, LABOUR ETC. COMPLETE.				

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No-: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
	A)	(i) EXTERNAL PLASTERING - 18MM THICK	SQM	3115.00	3.43	
	B)	(ii) INTERNAL PLASTERING -12MM THICK	SQM	5642.00	2.32	
	C)	(iii) CEILING PLASTERING - 6MM THICK- 1:3 (1 CEMENT & 3 FINE SAND)	SQM	28.00	2.09	
48	C48	PROVIDING 2MM THICK NEAT CEMENT FINISH USING OPC GRADE 43/53 OR EQUIVALENT PPC OVER CONCRETE BASE FOR FLOORING, PAVING, PLASTERED SURFACE ETC. INCLUDING CURING & CLEANING AND SCAFFOLDING COMPLETE.	SQM	4007.00	0.63	
49	C49	PROVIDING & APPLYING COLOUR WASH -THREE COATS ON NEWLY PLASTERED EXTERNAL SURFACE OF WALLS BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , COLOURING AGENT, BASE COAT OF WHITE WASH,APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	SQM	2977.00	0.34	
50	C50	PROVIDING & APPLYING WHITE WASH - THREE COATS ON NEWLY PLASTERED INTERNAL SURFACE OF SHED (EXCLUDING INNER WALL OF OFFICE/C&I ROOM) AND SITE OFFICE BY USING BEST SHALE LIME TO GIVE AN EVEN SHADE INCLUDING PREPARING THE SURFACE LIKE CLEANING AND BRUSHING & BROOMING OF WALLS AND IN ACCORDANCE WITH STANDARD SPECIFICATION. RATE INCLUDE COST OF ALL MATERIALS , APPROVED ADDESSIVE, SCAFFOLDING AT ALL LEVEL, BRUSH ETC. COMPLETE.	SQM	2672.00	0.25	
51	C51	PROVIDING & APPLYING TO INTERIOR SURFACES OF OFFICE, STORE OFFICE AND C&I ROOM BY TWO COATS OF OIL BOUND DISTEMPER (OBD) OF APPROVED SHADE ,COLOR AND MAKE CONFIRMING TO IS : 428 TO OBTAIN A EVEN FINISH AND UNIFORM COLOR OVER A COAT OF PRIMER AS PER MANUFACTURE RECOMMENDATION INCLUDING COST OF PAINT, SURFACE PREPARATION LIKE CLEANING AND BRUSHING & BROOMING OF WALLS , SCAFFOLDING AT ALL LEVEL ETC. COMPLETE. SURFACE PREPARATION SHALL BE DONE BY APPLYING PUTTY/PLASTER OF PARISH (POP) INCLUDING COST OF MATERIAL, LABOUR ETC. COMPLETE.	SQM	1864.00	1.38	
52	C52	PROVIDING AND FIXING OVER HEAD HYDRAULIC DOOR CLOSER (HEAVY DUTY) OF APPROVED BRAND AND SIZE ON NECESSARY DOORS AS DIRECTED BY BHEL ENGINEER.	NOS	25.00	10.23	
		FENCING:		0.00		
53	C53	PROVIDING AND FIXING BARBED WIRE FENCING AROUND OPEN STORAGE YARD AS PER BHEL DRAWING. POSTS SHALL BE SPACED AT 3M CENTRES AND STRUTS AT 30M CENTRES AND AT ALL TURNINGS WITH FOUNDATIONS, SUPPLYING AND FIXING GI BARBED WIRES, 10 HORIZONTAL LINES, TWO DIAGONALS BETWEEN POSTS BY MEANS OF GI STAPLES AS PER STANDARD PRACTICE. THE BARBED WIRE SHALL CONFORM TO IS 278 AND BE MADE OF TWO STRANDS OF GALVANISED TWISTED 2.5MM DIA (12.5 GAUGE) STEEL WIRE WITH FOUR POINT BARS. RATE QUOTED SHALL BE INCLUSIVE OF EXCAVATION, DISPOSAL OF SURPLUS EARTH / ROCK, CONCRETE (1:3:6), FORM WORK AND ALL MATERIALS, COST OF POSTS, BARBED WIRES, TRANSPORTING, FIXING IN POSITION ETC. INCLUDING COST OF ALL LABOUR AND TWO COATS OF ENAMEL PAINT OF APPROVED SHADE WITH A SHOP COAT OF PRIMER IN ALL STRUCTURAL MEMBERS ETC COMPLETE.	RM	438.00	12.08	
		SANITARY/ SEWAGE				
54	S1	PROVIDING AND FIXING WHITE GLAZED VITREOUS CHINA WASH HAND BASIN OF 55 CM X 40 CM SIZE INCLUDING COLD WATER PILLER TAP, BRACKETS, STOP TAP, CHROMIUM PLATED BOTTLE TRAP AND NECESSARY PIPE CONNECTIONS INCLUDING UPVC WASTE PIPE AND TRAP UPTO THE OUT SIDE FACE OF THE WALL, MAKING GOOD THE DAMAGED SURFACE, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NOS	9.00	29.47	
55	S2	PROVIDING AND FIXING EUROPEAN TYPE WHITE GLAZED VITREOUS CHINA W.C.PAN WITH UPVC SEAT AND LID WITH CHROMIUM PLATED BRASS HINGES AND RUBBER BUFFERS INCLUDING UPVC VENT PIPE (APPROX. 2M. HT. WITH COWL)) ON THE OUTSIDE FACE OF WALL, 10 LITRE PVC LOW LEVEL FLUSHING CISTERN WITH ALL FITTINGS, PIPE AND STOP COCK, BRACKETS FOR FIXING CISTERN, 32 MM DIA. UPVC FLUSH PIPE WITH FITTINGS AND CLAMPS, 20 MM DIA. UPVC OVERFLOW PIPE, FLOAT VALVES, CUTTING AND MAKING GOOD TO THE WALLS AND FLOORS, TESTING ETC. COMPLETE. PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.	NOS	7.00	55.29	
56	S3	PROVIDING AND FIXING IN POSITION OF WHITE GLAZED EARTHENWARE FLAT BACK/CORNER TYPE LIPPED FRONT URINALS OF 430MM X 260MM X 350MM / 340X460X265 MM OF APPROVED MAKE AND QUALITY WITHOUT FLUSHING CISTERN, GI FLUSH PIPE AND SPREADERS WITH BRASS UNIONS, GI CLAMPS, CUTTING OF WALLS AND MAKING GOOD OF ALL DAMAGES AND FINISHING TO MATCH THE EXISTING WORK ETC. COMPLETE. RATE QUOTED SHALL INCLUDE COST OF ALL MATERIALS AND LABOUR FOR CARRYING, LAYING & FIXING AND ALL OTHER INCIDENTAL CHARGES ETC. COMPLETE.	NOS	12.00	55.02	
57	S4	PROVIDING AND FIXING IN POSITION OF HIGH CLASS BELGIUM OR SUPERIOR MAKE BEVELLED EDGE MIRROR OF SIZE 450MM X 550MM X 6MM WITH 16 MM DIA & 550MM LENGTH NICKEL PLATED TOWEL ROD MOUNTED ON 6 MM THICK PLYWOOD OR PLASTIC FOLDER SHEET. RATE TO INCLUDE COST OF ALL MATERIALS, LABOUR FOR FIXING THE WOODEN PLUGS WITH CP BRASS SCREWS AND WASHERS ETC. COMPLETE.	NOS	9.00	13.22	
58	S5	PROVIDING AND FIXING IN POSITION OF 15 MM DIA CONCUSSION PUSH BUTTON TYPE BRASS/ GUN METAL SELF CLOSING TAP INCLUDING NECESSARY SOCKET, TESTING ETC COMPLETE FOR URINALS AS DIRECTION OF BHEL ENGINEER.	NOS	12.00	2.09	
59	S6	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS BIB COCKS OF STANDARD TYPE OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES JOINTING MATERIALS,SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NOS	14.00	7.95	
60	S7	PROVIDING AND FIXING IN POSITION OF 25 MM DIA GATE VALVE. INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NOS	11.00	7.42	
61	S8	PROVIDING AND FIXING IN POSITION OF 40 MM DIA GATE VALVE. INCLUDING ALL NECESSARY FITTING & FIXTURE ETC. COMPLETE AS PER STANDARD SPECIFICATION.	NOS	7.00	10.13	
62	S9	PROVIDING AND FIXING IN POSITION OF 15 MM DIA NOMINAL SIZE SCREW DOWN TYPE CHROMIUM PLATES BRASS STOP COCKS OF APPROVED MAKE AND QUALITY (LEADER MAKE OR EQUIVALENT) AS PER STANDARD SPECIFICATION.RATE INCLUDES COST OF JOINTING MATERIALS, SOCKETS,UNION NUT,TESTING, LABOURS FOR CARRYING AND FIXING ETC. COMPLETE	NOS	15.00	5.96	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No-: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
63	S10	PROVIDING AND FIXING IN POSITION OF 100MM X 50MM HCI "NAHANI" TRAP WITH HCI GRATINGS, BENDS, CONNECTING PIECES OF CI PIPE UPTO OUTSIDE FACE OF THE WALL. MAKING GOOD THE DAMAGED SURFACE, TESTING ETC COMPLETE AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NOS	18.00	0.50	
64	S11	PROVIDING AND FIXING IN POSITION OF 150MM SALT GLAZED STONE WARE GULLY TRAP WITH HCI GRATINGS AND CI COVER OF SIZE 300X300 MM OF APPROVED MAKE (WEIGHT NOT LESS THAN 2 KG) AND QUALITY AS PER STANDARD SPECIFICATIONS. RATE TO BE ALL INCLUSIVE.	NOS	9.00	26.84	
65	S12	PROVIDING AND LAYING WITH REQUIRED GRADING & LEVELING IN TRENCHES MEDIUM GRADE (TYPE) GALVANISED IRON (G I) PIPE HAVING EMBOSSED ISI MARK ON IT, OF REQUIRED DIAMETER WITH SCREWED, SOCKETS, JOINTS, NECESSARY GALVANISED IRON FITTINGS SUCH AS SOCKETS, BACK NUTS, ELBOWS, BENDS, TEES, REDUCERS, ENLARGERS, PLUGS, CLAMPS ETC. INCLUDING ALL NECESSARY EXCAVATION, BACK FILLING, FIXING WITH CLAMPS, TESTING ETC. COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE.) RATE TO INCLUDE EARTH WORK EXCAVATION IN ALL SOILS, INCLUDING HARD ROCK REQUIRING BLASTING, SHORING, BALLING OR PUMPING OUT OF WATER WHEREVER REQUIRED, REMOVAL OF SLUSH ETC. REMOVING AND DEPOSITING SURPLUS EARTH AS DIRECTED BY THE BHEL ENGINEER INCLUDING ALL LEADS AND LIFTS AS PER SITE CONDITIONS.				
A	A)	40MM DIA	RM	242.00	5.67	
B	B)	25MM DIA	RM	163.00	4.89	
C	C)	20MM DIA	RM	125.00	3.84	
D	D)	15MM DIA	RM	120.00	3.14	
66	S13	PROVIDING AT WORKING SITE, CARRYING AND LOWERING INTO TRENCHES, LAYING TO PROPER ALIGNMENT, LEVEL AND GRADE, JOINTING WITH CM (1:1) AND TESTING OF JOINTS ETC. OF THE FOLLOWING SIZE OF SALT GLAZED STONWARE PIPE INCLUSIVE OF ALL NECESSARY SPECIALS TARRER HEMP YARN AND ALL JOINTING MATERIALS COMPLETE AS PER STANDARD SPECIFICATIONS INCLUDING ALL NECESSARY EXCAVATION, BACKFILLING, DISPOSAL OF SURPLUS EARTH, LEAD AND LIFT AS PER SITE CONDITIONS. RATE SHALL INCLUDE COST OF ALL MATERIALS, LABOUR CHARGES AND INCIDENTAL CHARGES ETC. COMPLETE.				
A	A)	100MM DIA STONWARE PIPELINE INCLUDING ALL SPECIALS COMPLETE.	RM	150.00	3.14	
67	S14	SUPPLYING & FIXING IN POSITION OF RCC HUME PIPE OF NP2 WHEREVER DRAIN CROSSES THE ROADS INCLUDING ALIGNING, LEVELLING ETC. COMPLETE AS PER THE DIRECTION OF ENGINEER. INCLUDING P.C. & INCLUDING COLLAR JOINTS, ENCASEMENT WITH CONCRETE 1:3:6 OF 300 MM DIA, ENCASING SHALL BE PAID EXTRA UNDER RESPECTIVE ITEMS OF CONCRETE..				
	A)	400mm dia	RM	45.00	11.94	
	B)	600mm dia	RM	27.00	23.57	
68	S15	PROVIDING & FIXING OF WEEP HOLES WITH 75MM DIA. AC / PVC PIPES AT 3M C/C ON BOTH SIDES OF DRAIN WALL WITH FILTER MEDIA USING 40MM SIZE STONE GRIT OF SIZE (300X300X300MM).	RM	140.00	1.33	
69	S16	PROVIDING AND FIXING IN POSITION OF PVC OVERHEAD WATER TANK OF SYNTEX OR ANY APPROVED MAKE OF 500 LITRE CAPACITY WITH PROVISION FOR OVERFLOW ARRANGEMENT VALVES, INLET AND OUTLET ETC. COMPLETE. SUPPORTING STEEL STRUCTURE FOR FIXING THE TANK SHELL BE PAID IN THE RELEVANT ITEM.	NOS	4.00	54.60	
70	S17	PROVIDING AND FIXING IN POSITION OF PVC OVERHEAD WATER TANK OF SYNTEX OR ANY APPROVED MAKE OF 1000 LITRE CAPACITY WITH PROVISION FOR OVERFLOW ARRANGEMENT VALVES, INLET AND OUTLET ETC. COMPLETE. SUPPORTING STEEL STRUCTURE FOR FIXING THE TANK SHELL BE PAID IN THE RELEVANT ITEM.	NOS	1.00	109.21	
71	S18	CONSTRUCTION OF 230MM THICK BURNT CLAY / FLY ASH LIME BRICK CHAMBER (USING OPC GRADE 43/53) OF THE FOLLOWING DIMENSIONS (INNER DIMENSION) WITH 20MM THICK INTERNAL & EXTERNAL CEMENT PLASTER OF MIX CM 1:5 (1 CEMENT & 5 COARSE SAND), NEAT CEMENT FINISH, TOP CI - COVER AND CONNECTORS FOR SEWER LINES. RATE SHALL BE INCLUSIVE OF ALL NECESSARY EXCAVATION & FILLING, PCC-100 MM THICK OF 1:3:6 FOR BEDDING ON 100MM THICK OVERSIZER SOLING WITH 80 MM METAETC. COMPLETE.		0.00		
A	A)	600X450X450 WITH C.I COVER	NOS	6.00	73.29	
B	B)	900X600X450 WITH C.I COVER	NOS	5.00	94.84	
72	S18	PROVIDING AND FIXING OF PRECAST 80 MM THICK RCC COVER OF MIX 1:1.5:3 FOR MAN HOLES OF VARIOUS SIZES WITH REINFORCEMENT OF 10 MM DIA BOTH WAY TIED WITH TACK WELDING @ 150 MM C/C WITH 2 HOOKS OF 12 MM DIA BARS ETC. COMPLETE.				
A	A)	750MM x 600MM	NOS	6.00	12.13	
B	B)	1050MM x 750MM	NOS	5.00	18.20	
73	S19	PROVIDING AND FIXING CHROMIUM PLATED TOWEL ROD 16 MM DIA. AND 75CM. IN LENGTH INCLUDING ALL ACCESSORIES COMPLETE. (PRIOR APPROVAL OF SAMPLE AND BRAND BY BHEL ENGINEER IS NECESSARY BEFORE USE).	NOS	9.00	7.77	
74	S20	PROVIDING & FIXING OF LIQUID SOAP DISPENSER AT ALL WASH BASIN LOCATION.	NOS	9.00	3.15	
75	S21	PROVIDING AND FIXING OF AQUA-GUARD / KENT R.O. OR EQUIVALENT WATER PURIFIER (15L) ALONG WITH ALL FITTINGS. RATE TO INCLUDE ALL NECESSARY FITTINGS & FIXTURES, LABOUR ETC. AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS	3.00	377.25	
76	S22	PROVIDING AND FIXING OF 1 No. 18"X24" SIZE STAINLESS STEEL SINK WITH ALL FITTINGS LIKE DRAIN PIPE, STOP VALVE ETC. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC. AS APPROVED & DIRECTED BY BHEL ENGINEER.	NOS	2.00	76.92	
77	S23	PROVIDING AND FIXING 40MM THICK BEST QUALITY 18 MM THICK GANG SAW CUT, MIRROR POLISHED, PREMOULDED AND PREPOLISHED, MACHINE CUT GRANITE SLAB FOR KITCHEN PLATFORMS / WASH BASIN PLATFORMS OF REQUIRED SIZE, APPROVED SHADE, COLOUR AND TEXTURE LAID OVER 20 MM THICK BASE CM 1:4 (1 CEMENT : 4 COARSE SAND), JOINTS TREATED WITH WHITE CEMENT, MIXED WITH MATCHING PIGMENT, EPOXY TOUCHUPS, INCLUDING RUBBING, CURING, MOULDING AND POLISHING TO EDGES TO GIVE HIGH GLOSS FINISH etc.. COMPLETE OF REQUIRED SHAPE FOR FIXING SS SINK FOR KITCHEN COUNTER AND RACKS FOR KITCHEN STORE AREA ETC. COST INCLUSIVE OF MAKING OPENING AND FINISHING COMPLETE.	SQM	136.00	64.57	
78	S24	PROVIDING & FIXING IN POSITION OF CI VENT PIPE OF DIA. 100MM (APPROX. HT. 3M) IN SEPTIC TANK. RATE TO INCLUDE ALL NECESSARY FITTING & FIXTURE, LABOUR ETC.	RM	22.00	18.60	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No.-: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
79	S25	GRASSING WITH SELECTION NO. 1 GRASS INCLUDING WATERING AND MAINTENANCE OF THE LAWN FOR 30 DAYS OR MORE TILL THE GRASS FORMS A THICK LAWN, FREE FROM WEEDS AND FIT FOR MOWING INCLUDING SUPPLYING GOOD EARTH IF NEEDED (THE GOOD EARTH SHALL BE PAID SEPARATELY)				
	A)	WITH GRASS TURF	SQM	1200.00	0.11	
80	S26	PROVIDING AND LAYING BRICK ON EDGE FLOORING WITH BRICKS OF CLASS DESIGNATION 7.5 ON A BED OF 12MM CEMENT MORTAR, INCLUDING FILLING THE JOINTS WITH SAME MORTAR WITH COMMON BURNT CLAY NON MODULAR BRICKS:				
	A)	1:4 (1 CEMENT:4 COARSE SAND)	SQM	140.00	11.27	
		FURNITURE & FURNISHING				
		PREPARATION OF SITTING LAYOUT, PROVIDING AND ERECTING IN POSITION STANDARD AND MODULAR FURNITURE OF GODREJ / DELITE /DURIAN OR EQUIVALENT MAKE (PREFERABLY COMPLETE FURNITURE ITEMS SHALL BE OF A SINGLE MANUFACTURER TO MAINTAIN THE AESTHETIC LOOKS OF OFFICE). BEECHWOOD/TEAKWOOD/MALNUT/MAHOGANY/OAK/MAPLE WOOD, METAL SHADES AND APPROVED UPHOLSTRY SHADES FOR OFFICE SETUP (SEATING LAYOUT SHALL BE PREAPRED BY THE CONTRACTOR AND GET APPROVED FROM BHEL BEFORE INSTALLATION) AS FOLLOWS:				
	A)	OFFICE DESKS				
81	A1	CONFERENCE ROOM TABLE WITH CHAIRS - 30 SEATER - ENCARTA+ REGALE CH 1512 XC (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.	SET	1.00	3576.07	
82	A2	SUPER EXECUTIVE SUITS INCLUDING 1800X900X750 EXECUTIVE DESK WITH DRAWERS, 1200X600X780 LH/RH SIDE UNIT, 2200X790X400 BOOK CASE UNIT, 400X550X550 MOBILE PEDESTAL, 1400X500X750 CREDENZA AND 1050X1200 CURVED JOINTING TOP- MAESTRO PREMIUM SUITE (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.	NOS	2.00	2544.04	
83	A3	SENIOR EXECUTIVE SUITES INCLUDING 1500X750X750 EXECUTIVE DESKS WITH DRAWERS/PEDESTALS, 1000X500X780 SIDE UNIT & CREDENZA 1200X500X750- FINESSE EXECUTIVE SERIES (GODREJ) OR EQUIVALENT, AS APPROVED BY BHEL ENGINEER.		8.00	924.18	
84	A4	EXECUTIVE TABLES:- INCLUDING 1350X700X750 EXECUTIVE DESK WITH DRAWERS/PEDESTALS- ENZO/WT SERIES (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.	Sqm	25.00	170.13	
85	A5	RECEPTION DESK WITH CHAIR-SINGLE ARC CURVILINEAR RUBBER WOOD TOPS 950 MM HIGH APPROX 1200 MM WIDE 700 MM DEPTH, PERFORATED MODESTY PANELS OF APPROVED METAL COLOUR WITH SWIVEL CHAIR WITH ADEQUATE SINGLE OR TWIN WHEEL CASTORS AND WITH TWO ARMS AND PNEUMATIC HEIGHT ADJUSTMENT- AS APPROVED BY BHEL ENGINEER.	Sqm	1.00	1150.42	
86	A6	NORMAL DESKS- 1220X600 AND 750 MM HIGH WITH ATLEAST TWO DRAWERS AND 1 FILE CABINET AS APPROVED BY BHEL ENGINEER.	Sqm	8.00	141.18	
	B	OFFICE CHAIRS:	Sqm			
87	B1	SUPER EXECUTIVE CHAIRS: CUSHIONED BLACK LEATHER MOBILE SWIVEL CHAIRS WITH ADEQUATE SINGLE OR TWIN WHEEL CASTORS, WITH CENTRE TILT MECHNISM AND TILT LOCKING ARRANGEMENT. THE SEAT AND THE HIGH BACKREST ARE MADE UP OF MOULDED POLYURETHANE FOAM WITH TWO CHROME POLISHED ARMS AND PNEUMATIC HEIGHT ADJUSTMENT- HALO/MONARCH (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.	NOS	3.00	338.24	
88	B2	PREMIUM EXECUTIVE SWIVEL CHAIRS WITH ADEQUATE SINGLE OR TWIN WHEEL CASTORS WITH CENTRE TILT MECHANISM AND TILT LOCKING ARRANGEMENT. THE SEAT AND BACKREST ARE MADEUP OF MOULDED POLYURETHANE FOAM WITH FABRIC UPHOLSTRY, TWO ARMS AND PNEUMATIC HEIGHT ADJUSTMENT- REGENCY / PREMIUM EXECUTIVE (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.	NOS	8.00	214.99	
89	B3	VISITOR SWIVEL CHAIRS WITH ADEQUATE SINGLE WHEEL CASTORS, WITH CENTRE TILT MECHANISM AND TILT LOCKING ARRANGEMENT. THE SEAT AND BACKREST ARE MADEUP OF MOULDED POLYURETHANE FOAM WITH FABRIC UPHOLSTRY TWO ARMS AND PNEUMATIC HEIGHT ADJUSTMENT- EII 500IT (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER	NOS	30.00	118.67	
90	B4	VISITOR SWIVEL CHAIRS WITH ADEQUATE SINGLE WHEEL CASTORS, WITH CENTRE TILT MECHANISM AND TILT LOCKING ARRANGEMENT. THE SEAT AND BACKREST ARE MADEUP OF MOULDED POLYURETAHNE FOAM WITH FABRIC UPHOLSTRY, TWO ARMS AND PNEUMATIC HEIGHT ADJUSTMENT- 7031 (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.		40.00	84.85	
91	B5	TASK/ MULTIPURPOSE CHAIRS- OFFICE 1018 (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER		5.00	68.08	
	C	LONGUE FURNITURE:				
92	C1	SOOFA SETS (3+2+2)-RIVIERA F2324/5 OR EQUIVALENT AS APPROVED BY BHEL ENGINEER	SET	2.00	1085.84	
93	C2	CENTRE TABLES- C538 EX (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER.	SET	2.00	633.47	
	D	STORAGE UNITS				
94	D1	PLAIN CUPBOARDS- 1800 MM STOREWELL PLAIN, AS APPROVED BY BHEL ENGINEER	NOS	10.00	384.41	
95	D2	VERTICAL FILING CABINETS- 4 DRAWERS, AS APPROVED BY BHEL ENGINEER	NOS	10.00	397.49	
96	D3	LOCKER UNITS- 2 2 DOOR PLU, AS APPROVED BY BHEL ENGINEER	NOS	10.00	221.44	
97	D4	1200 MM HIGH GLASS HINGED DOOR UNITS, AS APPROVED BY BHEL ENGINEER	NOS	10.00	311.74	
98	D5	COMPUTER TABLES- COMPANION C10 (GODREJ) OR EQUIVALENT AS APPROVED BY BHEL ENGINEER	NOS	25.00	65.29	
	E	PROVIDING AND FIXING FOLLOWING TYPES OF WINDOW CURTAINS COMPLETE WITH ALL HOOKS GUIDES RODS & OTHER OPERATING ACCESSORIES				
99	E1	VERTICAL BLINDS OF APPROVED SHADE, MAKE AND PROFILE	NOS	15.00	39.13	
100	E2	ROLLER BLINDS OF APPROVED SHADE, MAKE AND PROFILE		15.00	31.10	
101	E3	CLOTH CURTAINS OF APPROVED TEXTURE, MATERIAL, PATTERN AND SHADE (ONLY REPUTED BRANDS)- AS DIRECTED BY BHEL ENGINEER.	SET	40.00	21.11	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No:- BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
	F	PROVIDING AND INSTALLING AIR CONDITIONERS OF LG, SAMSUNG, GODREJ, VOLTAS MAKE WITH VOLTAGE STABILIZER OF FOLLOWING TYPES				
102	F1	SPLIT TYPE- 2 T		7.00	736.71	
103	F2	WINDOW TYPE- 1.5 T	NOS	13.00	453.64	
104	F3	4' DESERT COOLERS WITH MS STAND (ONLY STANDARD BRANDS)- AS DIRECTED BY BHEL ENGINEER	NOS	10.00	179.35	
SECTION- B- ELECTRICAL WORKS FOR CONVENTIONAL CLOSED SHEDS, OPEN STORAGE YARD AND						
CONVENTIONAL OFFICE						
105	E1	SUPPLY & INSTALLING 3 PHASE METERING AND POWER DISTRIBUTION BOARD COMPLETE WITH : (1) INCOMING SFU TPN 400 AMPS- 1NO, (2) OUTGOING SFU TPN 200 AMPS -2NOS. (3) OUTGOING SFU TPN 100 AMPS -2NOS. (4) OUTGOING SFU TPN 32 AMPS -2NOS. 3 PHASE ELECTRONIC ENERGY METER - BHEL / L&T / GEC MAKE. AMMETER, VOLTMETER AND SELECTOR SWITCHES FOR BOTH - AE AND KAYCEE MAKE. PHASE INDICATION LAMPS, HRC FUSES FOR IC AND OG FEEDERS, CABLE GLANDS, POWER TERMINALS FOR CABLES TERMINATION, CABLE LUGS AND PROVISION FOR DOUBLY EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICKNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION, MODULAR CONSTRUCTION, HINGED DOOR WITH LOCKING ARRANGEMENT, BASE FRAME, SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT OF PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH LIGHT GREY AS PER SHADE 5, IS 630) INTERNAL POWER DISTRIBUTION TO DEVICES SHALL BE WITH AL BUSBARS OR COPPER FLEXIBLE SINGLE CORE PVC CABLES OF 1.1 KV GRADE, CONTROL WIRING WITH 1.5 SQMM, SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRANGEMENT AT FOUNDATION, SUITABLE FOR BOTTOM ENTRY OF CABLES.	NOS	1.00	1974.01	
106	E2	PROVIDING SUITABLE FOUNDATION FOR MOUNTING AC DISTRIBUTION BOARD , INSTALLATION & COMMISSIONING OF PANEL	NOS	1.00	92.57	
107	E3	SUPPLYING & INSTALLING POWER DISTRIBUTION BOARD FOR COVERED STORAGE SHEDS COMPLETE WITH: COMMON BOARD FOR ALL SHEDS. 1) INCOMING MCB TPH 100 AMPS. - 1 NO. 2) OUTGOING MCB TPH 32 AMPS. -3NOS. 3) RCCB DP 25/20 AMPS. - 2NOS. 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.	SET	3.00	773.57	
108	E4	SUPPLYING, PROVIDING SUITABLE FOUNDATION FOR MOUNTING 415 VOLT AC POWER FEEDER PILLAR BOARD AS SPECIFIED IN SL. NO.12, INSTALLATION & COMMISSIONING OF PANEL	NOS	3.00	63.62	
109	E5	SUPPLY OF 415 VOLT AC , 3 PHASE /FOUR WIRE POWER FEEDER PILLAR BOARD , BOARD SHALL BE COMPRISES OF THREE NUMBER AND ONE NUMBER ALUMINIUM BUS BAR FOR PHASE & NEUTRAL RESPECTIVELY. BUS BAR RATING SHALL BE 200 AMPS AND SHALL BE MOUNTED ON EPOXY INSULATOR OF 1.1 KV GRADE, EACH BUS BAR SHALL HAVE DRILLED HOLE FOR CONNECTING INCOMING / OUT GOING CABLES, PROVISION FOR EARTHING THE PANEL ENCLOSURE. PANEL ENCLOSURE SHALL BE MADE OF SHEET METAL THICKNESS NOT LESS THAN 1.6 MM AND SUITABLE FOR OUT DOOR INSTALLATION, HINGED DOOR WITH LOCKING ARRANGEMENT , BASE FRAME , SHOULD HAVE SLOPPED CANOPY, DULY PAINTED WITH FIRST COAT WITH PRIMER AND TWO COATS OF SYNTHETIC ENAMEL PAINT (INTERIOR WITH WHITE PAINT AND EXTERIOR WITH SMOKE GREY AS PER IS), SUITABLE STOOL MADE OUT OF MS STRUCTURE OF 1.2 METER HIGH FOR MOUNTING OF PANEL WITH ANCHORING ARRANGEMENT AT FOUNDATION .	NOS	2.00	342.80	
110	E6	PROVIDING SUITABLE FOUNDATION FOR MOUNTING 415 VOLT AC POWER FEEDER PILLAR BOARD AS SPECIFIED IN SL. NO.12 , INSTALLATION & COMMISSIONING OF PANEL	NOS	2.00	63.62	
111	E7	SUPPLYING & FIXING WALL MOUNTING TYPE LIGHTING PANELS, EACH WITH. (1) INCOMING MCB TPN -32 AMPS - 1NO. (2) RCCB DP 32 AMPS - 3NOS (3) MCB SP 6AMPS - 30 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.	NOS	5.00	429.47	
112	E8	SUPPLYING, PROVIDING AND INSTALLING WIRING USING 2.5 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES. WIRING SHALL BE CONCEALED TYPE FOR MAIN OFFICE, COMPUTER ROOM, OFFICE SHED & FOR REST OF SHEDS OPEN AND WHRERVER REQUIRED IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI/ POLY CAP/ HAVELLS/ FINALEX/ L & T / STANDARD	RM	368.00	2.43	
113	E9	SUPPLYING, PROVIDING AND INSTALLING WIRING FOR USING 4.0 SQ.MM. COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES. WIRING SHALL BE CONCEALED TYPE FOR MAIN OFFICE, COMPUTER ROOM, OFFICE SHED & FOR REST OF SHEDS OPEN AND WHRERVER REQUIRED IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI/ POLY CAP/ HAVELLS/ FINOLEX/L&T/STANDARD.	RM	148.00	2.96	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No.: BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
114	E10	SUPPLYING, PROVIDING AND INSTALLING WIRING FOR USING 6.00 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES OF ISI MAKE. WIRING SHALL BE CONCEALED TYPE FOR WHEREVER REQUIRED AS PER INSTRUCTION OF BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T/STANDARD.	RM	168.00	3.74	
115	E11	SUPPLYING, PROVIDING AND INSTALLING WIRING FOR USING 16.00 SQ.MM COPPER CONDUCTOR THROUGH PVC CONDUIT OF REQUIRED SIZE WITH ACCESSORIES AND FIXTURES OF ISI MARK WIRING SHALL BE CONCEALED TYPE FOR WHEREVER REQUIRED AS PER INSTRUCTION OF BHEL ENGINEER IN PVC CONDUIT OF REQUIRED SIZE. THE MAKE OF THE WIRE SHALL BE ONLY FROM KEI / POLY CAP/ HAVELLS/ FINOLEX/L&T/STANDARD..	RM	128.00	7.64	
116	E12	SUPPLYING, PROVIDING AND INSTALLATION OF WIRING FOR FANS/COOLERS USING 2.5SQ.MM COPPER CONDUCTOR OF ISI MARK THROUGH PVC CONDUITS WITH ACCESSORIES AND FIXTURES. THIS INCLUDES ALL MODULAR FITTINGS ETC. COMPLETE.	RM	48.00	12.60	
117	E13	SUPPLYING, PROVIDING AND INSTALLATION OF PLUG POINT OF 5A SOCKET (ANCHOR OR EQUIV.) OUTLET INCLUDING WIRING TERMINATION. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NOS	77.00	5.55	
118	E14	SUPPLYING, PROVIDING AND INSTALLATION OF PLUG POINT OF 15A SOCKET (ANCHOR OR EQUIV.) OUTLET INCLUDING WIRING TERMINATION. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NOS	53.00	7.12	
119	E15	SUPPLYING AND FIXING ORDINARY TUBELIGHT WITH FRAME OF STANDARD MANUFACTURER LIKE PHILIPS/BAJAJ OR EQUIVALENT AS APPROVED BY BHEL. THIS INCLUDES TUBE LIGHT FITTINGS ETC. COMPLETE.	NOS	155.00	6.32	
120	E16	SUPPLYING AND FIXING EXHAUST FANS 12" DIAMETER WITH FRAME OF STANDARD MANUFACTURER LIKE CROMPTAN GREEVES OR EQUIVALENT AS APPROVED BY BHEL.	NOS	11.00	39.35	
121	E17	SUPPLYING & FIXING HEAVY DUTY PLUG POINT 15 AMPS (ANCHOR MAKE OR EQUIV.) WITH ONE SWITCH FOR COMPUTER ,ONE FOR AC CONNECTION WITH BOARD ETC COMPLETE.	NOS	32.00	8.32	
122	E18	SUPPLYING AND FIXING METAL CLAD PLUG AND MCB OF 30AMPS. (CROMPTON/MDS MAKE) FOR AIR CONDITIONER WITH BOARD ETC COMPLETE.	NOS	28.00	13.59	
123	E19	SUPPLYING AND FIXING CEILING FAN 48" DIAMETER OF APPROVED COMPANY SUCH AS CROMPTAN GREEVES OR ANY OTHER STANDARD MANUFACTURER AS DIRECTED BY BHEL. THIS INCLUDES ELECTRICAL FITTINGS ETC. COMPLETE.	NOS	30.00	26.62	
124	E20	PROVIDING AND FIXING WALL MOUNTED FAN 48" DIAMETER OF APPROVED COMPANY SUCH AS CROMPTAN GREEVES OR ANY OTHER STANDARD MANUFACTURER AS DIRECTED BY BHEL. THIS INCLUDES ELECTRICAL FITTINGS ETC. COMPLETE.	NOS	4.00	46.28	
125	E21	PROVIDING AND FIXING CALLING BELLS (WITH INDICATOR LIGHT) OF STANDARD MANUFACTURER OR EQUIVALENT AS APPROVED BY BHEL INCLUDING ALL FITTINGS.	NOS	4.00	1.04	
126	E22	SUPPLYING, INSTALLATION & COMMISSIONING OF WEATHER PROOF FLOOD LIGHT LUMINIARIES . (FBD 1425/40-WITH HIGH PRESSURE SODIUM VAPOUR LAMP 1X 400 WATT ALONG WITH NON-INTEGRAL TYPE CONTROL GEAR BOX HAVING ADEQUATE NUMBER OF TERMINAL CONNECTORS FOR TERMINATING TWO CABLE OF 3X 10 SQMM AL AND SUITABLE FOR OUT DOOR APPLICATION)INCLUDING SUPPLY & FIXING CABLES BETWEEN THE CONTROL GEAR BOX AND LIGHT LUMINIARIES AND MOUNTING FIXTURE WITH HARDWARE FOR MOUNTING OF LIGHT LUMINIARIES AND CONTROL GEAR BOX ON POLE TYPE 410 SP-28. CONTROL GEAR BOX, CABLING & TERMINATION.	NOS	5.00	105.57	
127	E23	SUPPLY, INSTALLATION & COMMISSIONING OF SODIUM VAPOUR LAMP STREET LIGHT FITTING 150 WATT SSG-2315 IH OF CROMPTON OR SIMILAR PHILIPS MAKE. COMPLETE WITH ONE PIECE CANOPY, INTEGRAL CONTROLGEAR COMPRISING OF COPPER WOUND CHOKE , IGNITOR , HPF CAPACITOR, HPSV LAMP AND SUITABLE FOR DIRECTLY SLIPPING OVER LIGHT MOUNTING BRACKET MADE OUT OF 40 MM OD PIPE AND SUITABLE FOR LAMPS, CONTROL GEAR BOX CABLING & TERMINATION OF ITEMS SUPPLIED (TO BE MOUNTED ON 9 MTR POLE - ITEM CODE NO. E24).	NOS	38.00	91.83	
128	E24	SUPPLYING AND ERECTING STEEL TUBULAR SWAGED POLES, 9 MTR LONG MADE OF SHEET STEEL HAVING ULTIMATE TENSILE STRENGTH 42 KG F/SQ.MM CONFIRMING TO BIS :2713 (PART-II) COMPLETE WITH 300X300X6 MM THICK M. S. BASE PLATE FOR WELDING AT SITE AND SIZE AS PER CONFIGURATION GIVEN IN BIS FOR 410 SP-28 (113 KG- POLE WEIGHT) WITH 1.5 MTR. DEEP EXCAVATION, CONCRETING IN 1:4:8 RATIO SIZE 45 CMS X 45 CMS X 150 CMS AND POLE PLINTH IN 1:3:6 CEMENT CONCRETING HAVING 300 MM HEIGHT AND 300 MM DIA .INCLUDING DOUBLE EARTHING OF POLE WITH SUITABLE ARRANGEMENT, DULY PAINTED WITH TWO COATS OF RED OXIDE PAINT AND ONE COAT OF ALUMINIUM PAINT TO BE APPLIED AFTER ERECTION; THE LENGTH OF POLE BELOW GROUND TO BE PAINTED WITH TWO COATS OF BLACK BITUMINUS PAINT. THE POLE SHALL BE COMPLETE WITH JB, FUSE AND MINOR FABRICATION AS BELOW : I) DRILING 20 MM DIA HOLE AT ABOUT 2.5 MTR FROM GROUND LEVEL FOR WIRE LEADS FROM JUNCTION BOX TO LIGHT FIXTURE . II) DRILING 15MM DIA HOLES AT ABOUT 0.7 AND AT 2.5 MTR FROM GROUND LEVEL AND WELDING 12 MM NUTS FOR USING A 12 MM G.I BOLT FOR FASTENING EARTH CONDUCTORS. III) WELDING REQUIRED HOLES FOR FIXING POLE CAP OF STREET LIGHT BRACKET. IV) WELDING DIAMETRICALLY 10 MM M.S. ROUND 30 MM BELOW POLE TOP EDGE FOR CLIPPING WIRE LEADS.	NOS	43.00	183.75	
129	E25	PROVIDING EARTHING PITS WITH 2 " DIA , 2 M LONG GI PIPES WITH FLANGE & GI WIRES WITH CHARCOAL, SALT AND AS PER THE STANDARD PRACTICE FOR ELECTRICAL CONNECTION.RATE SHALL BE INCLUSIVE OF ALL MATERIALS, LABOURS, ETC COMPLETE.	NOS	7.00	21.43	
130	E26	SUPPLY AND 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	105.00	40.30	
131	E27	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	115.00	19.42	
132	E28	SUPPLY OF CABLES 3 -1/2 CORE X 185 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	950.00	12.39	
133	E29	INSTALLATION OF CABLES 3 -1/2 COREX 185 SQMM ALUMINIUM ARMoured PVC INSULATED RM CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM TRANSFORMER SUB STATION TO 415 VOLT AC DISTRIBUTION BOARD.	RM	950.00	3.38	

SCOPE: "Construction and Development of BHEL Closed Storage Sheds-03 Nos (900 Sq.m. each), Open Storage Yard with Interconnecting Roads and Drains (25,000 Sq.m.) and conventional office (450 Sq.m.) for 2X700 MW RAPP-KOTA"

Tender No:- BHEL/NR/SCT/ RAPP KOTA/ENABLING WORKS/955

SL. NO	ITEM CODE	DESCRIPTION OF WORK	UNIT	Quantity	Factor (F)	Per Unit RATE (R) in INR = (A X F) / 1000000
134	E30	SUPPLY OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	1010.00	45.76	
135	E31	INSTALLATION OF CABLES 3 -1/2 CORE X 95 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND, EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC DISTRIBUTION BOARD TO FEEDER PILLAR BOARD , FEEDER PILLAR BOARD TO LIGHTING MAST / TOWER.	RM	1010.00	3.26	
136	E32	SUPPLY OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE (THREE AND HALF CORE) CONFIRMING TO IS 1554 (PART -I)	RM	580.00	3.72	
137	E33	INSTALLATION OF CABLES 3 -1/2 COREX 35 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC. CABLES ARE TO BE LAID FROM FEDDER PILLER TO HIGH MAST TOWER	RM	580.00	3.14	
138	E34	SUPPLY OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I)	RM	1800.00	1.86	
139	E35	INSTALLATION OF CABLES 2 CORE X 10 SQMM ALUMINIUM ARMoured PVC INSULATED CABLE CONFIRMING TO IS 1554 (PART -I) INCLUDING LAYING OF CABLE BELOW GROUND , EXCAVATION OF TRENCH OF 600 MM DEPTH IN ALL KIND OF SOIL, TERMINATION OF CABLES CORES WITH CRIMP TYPE LUGGS, PROVIDING SAND LAYER BELOW/ ABOVE THE CABLE, BRICK LAYING BOTH SIDE /ABOVE THE ABOVE THE CABLE AND BACK FILLING ETC COMPLETE. CABLES ARE TO BE LAID FROM 415 VOLT AC POWER FEEDER PILLAR BOARD TO LIGHTING POLES & POLE TO POLE.	RM	1800.00	3.14	
140	E36	SUPPLY AND INSTALLATION OF SUITABLE ELECTRICAL PUMP FOR MINIMUM HEAD OF 10M (BUT NOT LESS THAN 2 H.P.) OF REPUTED MANUFACTURER LIKE SUGUNA/ CRI/ KILOSKAR/ SHAKTI/SHARP/ CROMPTON INCLUDING ALL ACCESSORIES, STARTER, D.B., ETC. AND TO BE CONNECTED TO OVER HEAD TANK FROM WATER STORAGE TANK BELOW G.L. GURRANTY/WARRANTY CARD TO BE SUBMITTED TO BHEL. SUCTION, DISCHARGE GI PIPES SHALL BE PAID SEPERATLY UNDER RELEVANT ITEMS.	NOS	1.00	368.80	

Note:- (1) Contractor shall fully understand the description & specification of items mentioned in BOQ.

(2) Conditional price bids or price bids with any deviation/ clarification etc are liable to be rejected . No cutting / erasing / over writer shall be done.

(3) . Quantities mentioned in the rate schedules are approximate only and liable for variation on either side depending upon site requirement.

(4). Item rate calculated based on %age mentioned above shall be the final rate for that item for execution of work. These rates shall remain firm irrespective of throughout the contract period / extnded contract