

BOQ CUM PRICE SCHEDULE

Name of work:- Construction of FFPH & WATER TANK & RCC CABLE TRENCH at 400/220/132 KV (GIS) Sub Station , Rasara Distt. Ballia.

Tender Specification no.:- TBSM/RASRA- BALLIA/CIVIL- FFPH BUILDING/PKG-IV/TENDER Date 21.10.2020

No.	Description	Unit	Qty	Unit Rate (in Rs.)	Total Amount (in Rs)
1	Excavation in foundation in ordinary soil (Loam Clay or Sand) including lift upto 1.5m and lead upto 30m and including filling, watering and ramming of excavated earth into the trenches or into the space between the building and sides of the foundation work.	CuM	1300	127.20	1,65,360.00
2	Add to Earth work item (SI No. 1.0) above but for every additional 30m lead or part thereof or for every additional 1.5M lift or part thereof.	CuM	250	19.20	4,800.00
3	Local sand filling in plinth including supply of necessary quantity of local sand from outside the UPPTCL premises including watering, dressing etc. Rate to include cost of all materials, labour and T&P etc. required for proper completion of work.	CuM	10	884.00	8,840.00
4	Earth filling under floors and/or sub station area including cost of earth when obtained from outside UPPCL area including its roylyt and carriage including watering, ramming in 20 cm layers and dressing of earth etc. all complete.	CuM	200	322.40	64,480.00
5	Concrete with 4cm gauge stone ballast , coarse sand (F.M. 1.8 to 2.5) & cement in proportion of 12:6:1 in foundations & under floors including supply of all materials, labour and tools and plants etc. required for proper completion.	CuM	220	5,560.80	12,23,376.00
6	Concrete with 4 cm gauge stone ballast (class 150mm) coarse sand (F.M. 1.8 to 2.5) and cement in proportion of 8:4:1 in foundation & under floors including supply of all materials, labour & T&P etc. complete.	CuM	100	5,876.80	5,87,680.00
7	RCC work with cement approved coarse sand (F.M. 1.8 to 2.5) and 2 cm gauge graded approved hard stone ballast like grainite, quartzite etc from Dalla, Jhansi or other quarries in proportion 1:1.5:3 in lintels of doors and windows , excluding supply of reinforcement & its bending but including its fixing and binding the same with binding wire, including cost of all other materials labour and T&P.	CuM	5	8,116.00	40,580.00
8	RCC work with cement approved coarse sand (F.M. 1.8 to 2.5) and 2 cm gauge graded approved hard stone ballast like grainite, quartzite etc from Dalla, Jhansi or other quarries in proportion 1:1.5:3 in slab , excluding supply of reinforcement & its bending but including its fixing and binding the same with binding wire, including cost of all other materials labour and T&P .	CuM	5	9,379.20	46,896.00
9	RCC work with cement approved coarse sand (F.M. 1.8 to 2.5) and 2 cm gauge graded approved hard stone ballast like grainite, quartzite etc from Dalla, Jhansi or other quarries in proportion 1:1.5:3 in lighter beams i.e. having span upto 6m , excluding supply of reinforcement & its bending but including its fixing and binding the same with binding wire, including cost of all other materials labour and T&P .	CuM	5	10,160.00	50,800.00
10	RCC work with cement approved coarse sand (F.M. 1.8 to 2.5) and 2 cm gauge graded approved hard stone ballast like grainite, quartzite etc from Dalla, Jhansi or other quarries in proportion 1:1.5:3 in raft foundation and footings , excluding supply of reinforcement & its bending but including its fixing and binding the same with binding wire, including cost of all other materials labour and T&P.	CuM	200	7,784.00	15,56,800.00

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11	RCC work with cement approved coarse sand (F.M. 1.8 to 2.5) and 2 cm gauge graded approved hard stone ballast like grainite, quartzite etc from Dalla, Jhansi or other quarries in proportion 1:1.5:3 in RCC pile caping, gantry walls/column foundations & RCC pedestals, excluding supply of reinforcement & its bending but including its fixing and binding the same with binding wire, including cost of all other materials labour and T&P.	CuM	280	8,034.40	22,49,632.00
12	RCC work with cement approved coarse sand (F.M. 1.8 to 2.5) and 2 cm gauge graded approved hard stone ballast like grainite, quartzite etc from Dalla, Jhansi or other quarries in proportion 1:1.5:3 in RCC T beam-slab and column , excluding supply of reinforcement & its bending but including its fixing and binding the same with binding wire, including cost of all other materials labour and T&P .	CuM	30	10,327.20	3,09,816.00
13	Concreting of RCC trench covers in mild steel frame work with RCC 1:1.5:3 in Cement,Chopan coarse sand (F.M. 1.8 to 2.5) and 2cm gauge graded hard stone ballast with 3mm thick floating coat of neat cement finish on top of cover complete with all labour, materials and placing the same in proper position at required location of cable trench within the substation area.	CuM	80	8,000.00	6,40,000.00
14	Cement concrete with 2cm gauge approved hard stone ballast , coarse sand (F.M. 1.8 to 2.5) and cement in proportion of 3:1.5:1 including supply of all materials, labour,side shuttering if required and T&P etc. required for proper completion of work	CuM	10	7,060.80	70,608.00
15	First class brick (class-150) work in 1:6 cement and coarse sand (F.M.1.8 to 2.5) mortar in foundation and plinth including supply of all materials, labour & T&P etc. required for proper completion of work including weep hole if required.	Cum	10	4,612.00	46,120.00
16	First class brick (class-150) work in 1:6 cement and coarse sand (F.M.1.8 to 2.5) mortar in in super structure including necessary cutting and moulding of bricks as required and also including honeycomb brick work, thickness of wall not to be less than one brick.	Cum	50	5,109.60	2,55,480.00
17	First class brick (class-150) work in 1:4 cement and coarse sand (F.M.1.8 to 2.5)mortar in foundation and plinth including supply of all materials, labour & T&P etc. required for proper completion of work including weep hole if required.	Cum	10	4,739.20	47,392.00
18	First class brick work in 1:4 cement and coarse sand (F.M.1.8 to 2.5) mortar in one brick thick in super structure including supply of all materials, labour & T&P etc. required for proper completion of work.	Cu.M	10	5236.80	52,368.00
19	First class brick (class-150) work in 1:4 cement and coarse sand (F.M. 1.8 to 2.5) mortar in superstructure including necessary cutting & moulding of bricks as required for half brick (115mm) thickness wall including supply of all materials, labour & T&P etc. required for proper completion of work	Cum	10	5351.20	53,512.00
20	Applying two coat Tapcrete mixed with white cement and water to proper consitancy on leaky surface including supply of all materials ,labour etc. required for proper completion of work .	Sqm	150	110.00	16,500.00

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No.	Description	Unit	Qty	Unit Rate (in Rs.)	Total Amount (in Rs)
21	Mild Steel or Iron work in heavy sizes such as trusses built up gates, door frames, record racks, roof work ,gates , steel embedments in concrete (GI pipe sleeves,edge protection angles,Insert plates,lugs etc) ,fence posts, railing etc. wrought to required form including holes rivetting or welding where necessary and also fixing in proper position and alignment including cost of all materials supplied by contractor.	MT	10	61,240.80	6,12,408.00
22	TMT/Tor steel in plain work such as reinforced concrete or reinforced brick work (when not included in an over all rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage, bend, hooks and authorized overlapping shall be measured. (Steel shall be arranged by the contractor)	MT	1	54,353.60	54,353.60
23	As in item sl no 22.0 above but when steel is provided by the department (BHEL) .	MT	50	15,698.40	7,84,920.00
24	Providing & fixing 1 mm.thick M.S. sheet garage door with frame of 40x40x6mm angle iron, diagonal bracings with 50x5 mm flat and 5 mm thick M.S. gusset plates at the junctions and corners including supply and fixing of necessary fitting, 2 no lock rail of 16 dia,375 mm long and including pintel hooks at the top and bottom, applying a priming coat of red oxide paint on all sides complete .	Sqm	10	2,361.60	23,616.00
25	Supplying and fixing rolling shutters of approved make made of 80x1.25 mm. Gauge cold rolled M.S. lathes inter locked through out their inner length and joined together at the end by end lock guides & arrangements for inside and outside locking with push &pull operation complete but excluding the cost of top cover and springs.	Sqm	100	1,720.00	1,72,000.00
26	P/F 27.5cm. long wire spring grades 2 for rolling shutters.	No	2	404.80	809.60
27	Providing and fixing top cover rolling shutters.	Rmt	4	402.40	1,609.60
28	Providing & fixing ball bearing for rolling shutters.	No	4	448.80	1,795.20
29	Providing M.S. Frames work, rack etc for R.C.C. Trench covers and edging with M.S. angles and M.S reinforcement including cutting, bending and welding as per approved drawing. The rate is including cost of all labour, materials etc. as required for proper completion of the work.	MT	10	58,054.40	5,80,544.00
30	Fixing and grouting of trench edging in proper level and alignment including cost of all labour, and T&P etc. required for proper completion of the work but excluding cost of C.C. (labour rates only) .	Rmt	650	9.60	6,240.00
31	12 mm thick plaster with cement mortar consisting of one part of cement & six part of coarse sand(1:4),minimum thickness not to be less then 10 mm including supply of all material, labour and T&P etc for proper completion of work.	Sqm	250	167.20	41,800.00
32	12 mm thick plaster with cement mortar consisting of one part of cement & six part of coarse sand(1:6),minimum thickness not to be less then 10 mm including supply of all material, labour and T&P etc for proper completion of work.	Sqm	350	160.80	56,280.00
33	Add for extra labour and materials for plaster over rough face of one brick thick wall.	Sqm	350	18.40	6,440.00
34	2 cm. thick cement plaster in dado or skirting in 1:2 consisting of one part of cement and two parts of approved coarse sand laid in panels finished with 3mm.floating coat of neat cement or cement and marble dust in ratio of 5:1 including supply of all materials, labour & T&P etc. required for proper completion of the work.	Sqm	10	236.80	2,368.00

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No.	Description	Unit	Qty	Unit Rate (in Rs.)	Total Amount (in Rs)
35	S/mixing approved water proofing compound (CICO,DR FIXIT etc) in cement mortar in plaster or concrete work in the proportion as recommended by the manufacturer.	Kg	100	37.60	3,760.00
36	Providing (12x15) mm section groove in plaster including all material, labour and T&P etc. required for proper completion of the work.	Rmt	10	9.60	96.00
37	6 mm. thick plaster with 1:3 cement & coarse sand including labour, materials & T&P etc. required for proper completion of the work.	Sqm	150	137.60	20,640.00
38	Champering the edge of concrete in auxiliary structure, of size 25 mm wide in triangular section including all materials, labour & T&P etc complete.	Rmt	10	6.40	64.00
39	Making drip course (25x12) mm in 1:2 cement and coarse sand including supply of all materials, labour and T&P etc required for proper completion of work.	Rmt	10	8.80	88.00
40	4.0 cm thick 1:2:4 plain cement concrete floor with cement, approved coarse sand & 2cm graded approved stone ballast laid in panels finished with 3mm floating coat of neat cement or cement and marble dust in ratio of 5:1 as specified and removing any overlapping mortar at the joints of the panels if any and giving them a uniform finish including supply of all materials, labour and T&P etc, required for proper completion of the work (without base CC)	SqM	100	378.40	37,840.00
41	First class bricks on edge floor laid dry , joints sand filled, including preparation of base to proper slope and its ramming including supply of all material labour & T&P etc. required for proper completion of the work.	SqM	100	441.60	44,160.00
42	Providing and fixing glass strips of 3.15 mm thickness & 40mm depth in joints of floor and skirting at the time of laying floors, flush with floor level including supply of all materials, labour & T&P etc. completion required for proper completion of work.	RM	200	24.00	4,800.00
43	Painting two coat with Acrylic emulsion paint of Berger/ Asian/ ICI or equivalent paint (Paint and water in the ratio 1:1 by volume) over prepared and primed surface of cement concrete, cement plaster and bricks including all labour, material and T&P etc required for proper completion of the work, (preparation of base with Birla putty etc. and a coating of primer shall be paid extra) .	Sqm	350	97.60	34,160.00
44	Painting letters & number over cable trench cover or other places with the help of stencils including painting of base of 150 mm. dia of one coat of primer and two coats of superior quality synthetic enamel paint size of letter to be 60 mm. x 10 mm. including cost of all materials labour and T&P etc. required for proper completion of the work including placing of Trench covers in required position	No.	100	9.60	960.00
45	Applying Birla or equivalent putty on new interior or exterior surface over one coat of water based cement primer of ICI or equivalent brand for smoothening and levelling of the surface as per requirement and direction of Engineer I/C including cost of all material, labour, T & P etc required for proper completion of work.	Sqm	700	67.20	47,040.00
46	Painting two coat with APEX or equivalent brand weather coat paint on new wall surfaces (well prepared with Birla putty and one coat of primer ICI or equivalent which shall be paid separately) including thorough washing with water including cost of all materials, labour, T&P required for proper completion of work.	Sqm	350	111.20	38,920.00

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No.	Description	Unit	Qty	Unit Rate (in Rs.)	Total Amount (in Rs)
47	Finishing walls with water proof cement paint of approved make like "Super Snowcem" or equivalent quality on new work with three coats to give an even shade including supply of all materials, labour etc. required for proper completion of work.	Sqm	100	64.00	6,400.00
48	Placing of trench cover of all size in proper position including transportation from different places within the S/S area including all labour, T&P etc. required for proper completion of the work as per direction of Engineer - in - charge.	No	1250	7.20	9,000.00
49	3 mm thick floating coat of neat cement finish including supply of all materials,labour and T&P etc. required for proper completion of the work.(cement consumption 0.044 bag/Sq.m.)	SqM	10	14.40	144.00
50	Providing and fixing of 110 mm dia PVC pipe 6 Kg/ Sq.cm for with special such as Tee, bend, socket, elbow etc including supply of all labour,material,T & P etc complete required for proper completion of work.	RM	50	204.00	10,200.00
51	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc, including cost of de-shuttering and decentering at all levels, over a height of 3.5m, for every additional height of 1 metre or part there of (plan area to be measured)	Sqm	100	169.97	16,997.00
52(A)	Providing and laying non-pressure 150 dia NP3 class RCC pipes with collars with stiff mixture of cement mortar in the proportion 1:2 (1-Cement, 2-Coarse sand) including testing of joints including cost of all material, labour, T&P etc. required for proper completion of the work. 150 mm dia RCC pipe	Rmt	10	731.20	7,312.00
52(B)	Same as Item No.52(A) above but for 300 mm dia. RCC pipe	Rmt	10	1,149.60	11,496.00
53	Cement concrete with 4cm gauge approved hard stone ballast, coarse sand (F.M. 1.8 to 2.5) and cement in proportion of 4:2:1 including supply of all materials, labour,side shuttering if required and T&P etc. required for proper completion of work.	Cum	5	6,519.20	32,596.00
54	Supply and fixing Anodized Aluminium Door fittings like 2 no 150 mm handles,2 no 250 mm tower bolt, 1 no stopper and 1 no 12 mm belan including all materials, labour & T&P etc. required for proper completion of work.	Sqm	10	312.80	3,128.00
55	Providing and fixing aluminium work for doors, windows, ventilators 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 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 requiredincluding deat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	50	283.20	14,160.00

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No.	Description	Unit	Qty	Unit Rate (in Rs.)	Total Amount (in Rs)
56	Providing and fixing aluminium work for doors, windows, ventilators 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 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 Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	50	328.80	16,440.00
57	Providing and fixing glazing in aluminium door, window, ventilator shutters 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): With float glass panes of 5.50 mm thickness:	Sqm	10	850.40	8,504.00
58	S/Fixing of double action floor springs including cutting in floors / RCC slabs and grouting the same with C.C. & finishing the surface properly as and where required under aluminium doors as per direction of Engineer-in-charge. including cost of all other material, labour, tools & plants etc. complete.	Each	2	2,311.20	4,622.40
59	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium.	each	10	47.60	476.00
60	P/F of Structure glazing with Use of hermetically sealed double glazed unit. ("SGG PLANITHERM" SATIN BLUE 6mm thick PLT TB LOW E high performance offline coated toughend glass) The inner glass being Clear Glass 6mm thick (Toughened) and the outer glass being 6mm reflective (Toughened). Both the glasses are separated by a Aluminum spacer and 12mm airgap . Desiccants to be used to avoid moisture between glasses. (double glass Light Factors-transmission(%)>=49 %, Reflection % external= 8%, internal=10%, solar factor/sf=0.35, shading co-efficient/sc=0.40, Uvalue =1.8 W/sqmK), used with help of heavy aluminium section. Glass pasting with section by recommended adhesive both side 2.0 mm tape complete with MS bracket & Hold fastner. (Aluminium work & Hold fastner paid by separately) as approved by E/I.	Sqm	10	2,741.55	27,415.50
61	Dismantling brick work or stone work in lime or cement mortar and including stacking of materials as directed by the Engineer-in-charge within a distance of 60 meters.	Cum	10	372.80	3,728.00
62	Dismantling reinforced cement concrete or reinforced brick work, including stacking of dismantled materials as directed by the Engineer-in-charge within a distance of 60 meters.	Cum	10	834.40	8,344.00
63	Supply & fixing of 24 B W G Iron sheet roofing fixed in position with J or U bolts 10 mm dia with GI Limpet & bitumen washers including supply of all materials ,labour,wastage & T&P etc required for proper completion of work.	Sqm	200	476.80	95,360.00

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No.	Description	Unit	Qty	Unit Rate (in Rs.)	Total Amount (in Rs)
64	Providing and Placing in position suitable PVC water stops conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete :22.4.1 Serrated with central bulb (225 mm wide, 8-11 mm thick)	RM	100	216.54	21,654.00
Total amount in Rs (Excluding GST)					103,66,728.90
NOTE: 1. Mode of measurement for the above civil works shall be as per customer technical specifications . 2. The Rate of RCC/CC includes the cost of form work (Centering, Shuttering & Scaffolding) and no additional payment shall be made for form work. 3. For excavation ,nothing extra shall be payable for slope, shoring, strutting etc. irrespective of whatever is provided .However the contractor shall maintain the required slope and working space as per the safety /statutory requirement and its cost is deemed to be included in the quoted rate. The Overlapped portion in the case of adjacent foundation shall be paid once.					

PRICE BID Format

Project / works Name :- EXECUTION & HANDING OVER OF CIVIL WORKS OF CONSTRUCTION OF FIRE FIGHTING PUMP HOUSE BUILDING, WATER TANK AND HT CABLE TRENCH WORK AT 400 KV GIS SUBSTATION AT RASRA, BALLIA

Tender Spec no.:- TBSM/RASRA- BALLIA/CIVIL- FFPH BUILDING/PKG-IV/TENDER Date 21.10.2020

SI No.	Description	Amount (Rs.)
1	Total amount as per the rates in BOQ for "Execution & handing over of Civil Works of construction of Fire Fighting Pump House Building, water Tank and HT cable Trench work at 400 kV GIS Substation at Rasra, Ballia" (Annexure-I)	103,66,728.90
2	Value of percentage above/below/at par applicable to the total amount of subject work (Sl. no. 1 above) % (Numeric)% In words above/below/ at par (to be filled by Bidder)
3	Total amount after consideration of percentage above/below/ at par. (to be filled by Bidder)

1. In this annexure the tenderer shall quote a percentage above/ below/At Par the rates shown in the Bill of Quantities Cum Price Schedule (Annexure-I) of subject tender. The percentage quoted shall be clearly written both in words and figures In case of discrepancy in rates in figure and words, the minimum will be taken into account by BHEL.

2. The quoted percentage will apply to the individual items uniformly.

Declaration by Bidder

I/ We hereby agree to execute the above work at ----- % (in figure)
..... In words) Above / Below/ At Par the rates of items given in BOQ
(Annexure-I) of subject tender.

Date:

Place

Signature of tenderer

Name & Designation of authorized person(s) with seal