

**TENDER NO. BHEL:PARICHA-III:STORES:377**

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**TENDER SPECIFICATION**

**TENDER NO. BHEL:PARICHA-III:STORES:377**

**FOR**

**Construction of storage shed and other infrastructure facilities at 2 x 250MW Paricha TPS Extention Units 5and 6, Dist. Jhansi, UP.**

**PART II – PRICE BID**

**PART-A**



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

**BOQ CUM RATE SCHEDULE FOR CONSTRUCTION OF STORAGE SHEDS - PARICHA TPS EXTENTION UNITS 5+6 -- PART- A**

TENDER NO. BHEL:PARICHA-III:STORES:377

Construction of storage shed and other infrastructure facilities at 2 x 250 MW Paricha TPS Extention Units 5and 6, Dist. Jhansi , UP.

Rate Schedule Cum Bill Of Quantities, Part-'A' Store shed with tubular trusses, GC roof sheeting and brickwork walls , Internal electrification work , RCC sleepers etc.

S.NO	DESCRIPTION OF ITEM	UNIT	QTY.- TOTAL	Rate	Total
1	<b>Earth work</b> in excavation in all types of ordinary and hard soil including removal of vegetation, shrubs and debris, getting out and stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works such as concreting form work etc. and disposal of surplus excavated soil as directed, disposed soil to be neatly levelled and dressed lead upto 100 meters and lift upto 2.0 meter complete.	Cu.M	225		
2	Back filling available excavated earth (excloding rock) in trenches, plinth, slides of foundations etc., including re-excavating the deposited soil excavated earlier, breaking clods, laying at all depths and heights in layers not exceeding 20 cm indepth, consolidating each deposited layer by ramming and watering complete lead upto 50 Metre and lift upto 1.5 Meter.	Cu.M	150		
3	Disposal of surplus excavated earth and debris including re-excavating the deposited soil earlier, transportation, loading, unloading, laying at all depths and heights, leveling and dressing both the area (viz. From where earth is transported and where it is deposited) to required levels and slopes, complete with all lifts as directed. ( upto 2 KM)	Cu.M	75		
4	Providing and tilling of quarry dust as levelling course compacting <b>the same with 8 to 10 ton roller</b> complete in all respects as directed by Engineer-in Charge	Cu.M	120		
5	Providing and laying and laying <b>damp proof course</b> 40 mm thick with concrete grade 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size and applying a coat of residual petroleum of penetration 80/100 of approved quality using 1.7 kg per sq. metre on damp proof coarse after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in KEROSENE OIL.	Sq M	35		
6	<b>Brick work</b> with class designation 75 <b>in cement mortar</b> 1:6 (1 cement : 6 coarse sand) in foundation, plinth and super structure in thickness of 230 mm including cost of all materials, lead lifts, labour charges, mixing mortar, laying bricks, racking joints, curing etc. all complete as per drawing and specification and direction of Engineer In-charge.	Cu. M	80		

**BOQ CUM RATE SCHEDULE FOR CONSTRUCTION OF STORAGE SHEDS - PARICHA TPS EXTENTION UNITS 5+6 -- PART- A**

<b>S.NO</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QTY.- TOTAL</b>	<b>Rate</b>	<b>Total</b>
7	<b>Plain cement concrete</b> of mix 1:4:8 (1 cement : 4 coarse sand and 8, 40 mm down graded stone aggregate) for column footing, levelling, floors etc., including cost of all materials, lead, lift, labour charges, consolidation, shuttering, curing etc. complete.	Cu. M	10		
8	<b>Plain cement concrete</b> of mix 1:2:4 (1 cement, 2 coarse sand and 4, 20 mm down graded aggregate) for flooring etc. including cost of materials, lead lift, labour charges for concreting, shuttering, curing etc. complete.	Cu. M.	40		
9	Providing and placing mild steel/ tor <b>steel reinforcement</b> for RCC work including cost of all materials, labour for cutting, bending, binding and placing in position complete as per drawing and instruction of Engineer.	MT	2.5		
10	<b>Plastering work</b> with cement mortar <b>1:6</b> (1 cement : 6 coarse sand) 12 mm thick after scrapping and cleaning the masoary joints including scaffolding, cost of materials, labour, mixing , leads & lifts, curing etc. complete.	Sq. M	200		
11	Supply fabrication and erection of steel tubular trusses, purlins, wind ties, base plates, gusset plates, bolts, nuts etc. complete as per drawings, specifications & instructions of engineer including cost of all materials leads, lifts labour charges etc. and one coat of primer and two coats of approved enamel paint for finished products at site complete as per technical specifiction and direction of engineer.	MT			
a)	Trusses (medium grade pipes)	MT	4		
b)	Purlins	MT	8		
c)	Wind ties (Flats) 50 x 6 mm thick	MT	0.5		

**BOQ CUM RATE SCHEDULE FOR CONSTRUCTION OF STORAGE SHEDS - PARICHA TPS EXTENTION UNITS 5+6 -- PART- A**

<b>S.NO</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QTY.- TOTAL</b>	<b>Rate</b>	<b>Total</b>
12	Providing and fixing <b>solid core flush door shutters</b> non decorative type, core of black board construction with frame of Ist class hard wood and well matched commercial ply ceneering with vertical grains or cross bands and face veneers on both faces of shutters 35 mm thick including all supply and fixing of door frames made up of 40x40x5 Tee section with 15x3 mm, 10cm long lugs embedded in cement concrete blocks 15x10x10 cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded aggregate 20 mm size) including all accessories like aluminium handle/ tower bolt and iron hinges, aldrep etc., as per drawings, applying of coat of primer and two coats of enamel paint of approved brand etc., complete as per specification complete.	Sq. M	2		
13	Providing three coats of <b>white wash</b> to give a smooth and even shade including cost of materials, cleaning and preparation of surface, scaffolding etc. complete.	sqm	100		
14	Finishing walls/ surfaces with <b>water proofing cement paint</b> of approved brand and manufacture and of required shade to give an even shade.	sq.M	100		
15	Providing and fixing <b>corrugated GS sheet</b> roofing fixed with GI J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	850		
16	Providing and fixing <b>corrugated Transperent Plastic sheet</b> roofing fixed with GI J or L hooks bolts and nuts 8mm diameter with bitumen and GI limpet washer complete (upto a pitch of 60 degrees) including steel primer and 2 coats of approved paint at overlaps. as per tech. specification.	Sq.M	50		
17	Providing and fixing GS ridges including supply and fixing J or L bolts and nuts bitumen & GI washers etc. complete as per Technical Specification	RM	35		
18	<b>Construction of RCC sleepers</b> of size 1M x 0.2M x 0.15M or any other size as per drawing including cost of all material, labour and shuttering complete as per drg. Using concrete mix 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate) and nominal reinforcement steel.	Cu.m.	5		
19	Providing and fixing <b>PVC pipe</b> (2.5 kg/cm <sup>2</sup> ) of 200 mm dia. as rain water pipe in above item .	RM	30		
20	Making plinth protection 50 mm thick of cement 1:3:6 ( 1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size ) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	Sq.M	100		

**BOQ CUM RATE SCHEDULE FOR CONSTRUCTION OF STORAGE SHEDS - PARICHA TPS EXTENTION UNITS 5+6 -- PART- A**

S.NO	DESCRIPTION OF ITEM	UNIT	QTY.- TOTAL	Rate	Total
21	Fixing already available 1 x 40 Watt Battem type <b>flourescent tube fitting</b> with Accessories like fluoresent lamp,copper wound polyster choke, starter, seat, rotor holder and terminal block duly pre-wired with copper conductor, including connections, fixing on wall, false ceiling or under roof <u>tusties with clamps as required</u>	Nos.	40		
22	Providing and fixing of <b>bulkhead (outdoor)</b> type fixture with glass cover and galvanized wire guard with 1 x 100 W GLS lamp (Crompton / Philips/Bajaj / Mayfare make), complete with lamp and fixing clamp etc.	Nos.	4		
23	Providing and fixing 1 x 250 W HPSV out door type fittings (Crompton / Philips/BajaJ , complete with lamp, ballast control gear box, fixing clamp etc.	Nos.	6		
24	Providing and fixing of following sweep <b>exhaust fan</b> (Khaitan / Crompton make) single phase alongwith gravity louvers, frame / tripod for holding the motor including making necessary opening in wall, supply & fixing of assembly with grouting bolts, making connections, loop earthing etc.	Nos.			
b	300 mm sweep	Nos.	8		
25	Providing & fixing of 240 V, 5 / 15 Amp 6 <b>Pin Power socket</b> outlet point (with 15 A switch ). Switch / socket to be fitted in suitable size 20 SWG metal type box with 3mm sunmica sheet	Nos.	2		
26	<b>Wiring</b> of above <b>power sockets</b> with 4 Sq. mm PVC insulated Copper Conductor wires as per IS, 650 / 1100 V grade including 20 SWG GI earthing wire in PVC medium grade conduit including supply of items.	Nos.	2		
27	<b>Wiring</b> of the following points (including supply of Wires, switches, sockets, conduits, clamps, boards, metal boxesand other misc. items) with 2.5 sq.mm colour coated PVC insulated aluminium conductor wires as per IS- 650/1100 volts grade in surface PVC conduits (medium grade) including laying of 20 SWG GI wire, conduit fitting, piano type control switches (Anchor make) in suitable sized 20 SWG metal box with 3 mm sunmica sheet having provision for fan regulator, 5 Amp switch socket and to accommodate all the light points inside the shed (excluding office rooms in one shed) with switches for exhaust fans & fan. wiring includes wiring from mains to the board with 4 sq.mm Aluminium PVC coated colour coded wire.				
a	40 W Tube light fittings. Number of fittings to be controlled by 1no 5A switch has to be 5 in store . Switch. Board with switches, fan regulator, 5 Amps 3 Pin switch & socket to be provided as per requirement( 5 to 8 in total)	Points	40		
b	100 W GLS fixture.Independent switch to be provided with each fitting.	Points	4		
c)	Wiring for exhaust fan.	Points	8		

**BOQ CUM RATE SCHEDULE FOR CONSTRUCTION OF STORAGE SHEDS - PARICHA TPS EXTENTION UNITS 5+6 -- PART- A**

S.NO	DESCRIPTION OF ITEM	UNIT	QTY.- TOTAL	Rate	Total
<b>d</b>	2 x 250 W HPSV out door type fitting. One number 10 A DP switch to be used for controlling 2 fittings. D.P Switches to be fixed on outside of the store shed wall	Points	6		
<b>28</b>	Providing and fixing of <b>32 Amp TPN with HRC fuses</b> and wired with 10 sq.mm 650/1100 V Grade PVC wires with ferrules along with earth wire. The TPN to be provided on one side of the central shed with rain protection cover.	Nos.			
<b>29</b>	Supply and burying of <b>earths electrods</b> 40mm dia 3 mtrs. Long including earthing upto switch board with 8 SWG GI wire.	Nos.	6		
<b>30</b>	Providing , Installation and commissioning of 12 W Lighting Panel with 12 nos 16 A MCB with 63 A SFU incomer in Sheet metal housing with double door arrangement , including all earthing and statutory requirements .	Nos.	1		
<b>31</b>	Taking delivery from stores and laying of following type of PVC Insulated, PVC armoured standard <b>aluminium conductor cable</b> confirming to IS:1554-1976 (part 1), glanding with single compression gland, termination of both end in DB & SFU. The cable has to be laid underground on sand cushion including backfilling, susitable clamp, clamping on surface including all materials etc. complete.(Only cable will be issued by BHEL as free issue item and all other materials are to be provided by the contractor).This includes road crossing for which suitable GI Pipe to be provided by the contractor.				
<b>a</b>	3 1/2 core x 70/50 sq.mm armoured cable	RM	150		
<b>32</b>	Rolling Shutter for Stores Shed (appx size 4m x 3m )	Nos.	1		
<b>33</b>	Earthing Flat 50 x 6 for Earthing	RM	50		
Notes:	<p>1. In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.</p> <p>2. The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.</p> <p>3. The bidders shall enter both 'Unit Rate' &amp; 'Amount'. In case of any mismatch between 'Total Amount based on Unit Rate' &amp; 'Total Amount as quoted', the lower of the two shall be considered for evaluation and award.</p> <p>4. The quantities indicated against each item above are tentative and same are liable to vary depending upon the site requirement. The contractor has to handle all items indicated by BHEL Engineer for completion of work.</p>				

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**FOR**

**Construction of storage shed and other infrastructure facilities at 2 x 250MW Paricha TPS Extention Units 5and 6, Dist. Jhansi, UP.**

**PART II – PRICE BID**

**PART-B**



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

**CONSTRUCTION OF OUTDOOR YARD - 1 PARICHA TPS EXTENTION UNITS 5+6 -- PART-B**

**TENDER NO. BHEL:PARICHA-III:STORES:377**

<p><b>Construction of storage shed and other infrastructure facilities at 2 x 250MW Paricha TPS Extention Units 5and 6, Dist. Jhansi , UP.</b></p> <p><b>Rate Schedule Cum Bill Of Quantities, Part-'B' for the development work of Store Area-A including forest area clearing and excavation , soling , providing of approach road , Fencing etc .</b></p>
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<b>S.NO.</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QTY</b>	<b>RATE</b>	<b>TOTAL</b>
1	<b>Earth work</b> in excavation for removal of vegetatation, shrubs and debris, levelling , getting out and stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any soruce and keeping the surface dry for subsequent works such as soling work work etc. and disposal of surplus excavated soil as directed, disposed soil to be neatly levelled and dressed lead upto 100 meters and lift upto 2.0 meter complete.	Sq.M	20000		
2	Supply and stacking of hard stone 22.5 cm size at site as per std Specifications , payments to be made on the stack measurements deducting voids	CUM	6000		
3	Supply and stacking of good quality moroom at site as per std Specifications	CUM	2000		
4	Laying soling using 22.5 cm hard stone and blinding material including sorting spreading to template and spreading the moorum over the top of lais stone and consolidated with power rollors of 8 to 10 tons capacity etc and complete . Payments will be made based on as per actual arealais multiple by comsolidated thickness	CUM	6000		
5	Providing and tilling of quarry dust as levelling course compacting the same with 8 to 10 ton road roller complete in all respects as directed by Engineer-in Charge	CUM	6000		
6	Laying water bound macadam with specified stone aggregate stone screening and blinding material including screening sorting , spreading to template and consolidation with power roller 8 to 10 T capacity ( payment for stone aggregate , screening , kankar , moorum and red bajri to be made separately) for Base Course 63 mm to 45 mm size including stone screening 13.2 mm	Sq.M	3000		

**CONSTRUCTION OF OUTDOOR YARD - 1 PARICHA TPS EXTENTION UNITS 5+6 -- PART-B**

<b>S.NO.</b>	<b>DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>QTY</b>	<b>RATE</b>	<b>TOTAL</b>
7	Supplying and erecting in position 2.4 m high gavanised chain linked fencing of minimum 8 gauge of mesh size 75 mm. The diameter of the steel wire for chain link fencing shall not be less than 12 gauge.	R M	700		
8	Providing of Gate of Fabricated Pipe structure complete with barbed wire etc including a coat of primer and two coats of enamel paint.	kg	250		
Notes:	<p>1. In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.</p> <p>2. The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.</p> <p>3. The bidders shall enter both 'Unit Rate' &amp; 'Amount'. In case of any mismatch between 'Total Amount based on Unit Rate' &amp; 'Total Amount as quoted', the lower of the two shall be considered for evaluation and award.</p> <p>4. The quantities indicated against each item above are tentative and same are liable to vary depending upon the site requirement. The contractor has to handle all items indicated by BHEL Engineer for completion of work.</p>				

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**FOR**

**Construction of storage shed and other infrastructure facilities at 2 x 250MW Paricha TPS Extension Units 5 and 6, Dist. Jhansi, UP.**

**PART II – PRICE BID**

**PART-C**



**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**

## TENDER NO. BHEL:PARICHA-III:STORES:377

## Construction of storage shed and other infrastructure facilities at 2 x 250MW Paricha TPS Extention Units 5and 6, Dist. Jhansi , UP.

## Rate Schedule Cum Bill Of Quantities, Part-'C' for the development work of Store Area-B including forest area clearing and excavation , soling , providing of approach road , Fencing etc .

S.NO.	DESCRIPTION OF ITEM	UNIT	QTY	RATE in Rs.	TOTAL IN Rs.
1	<b>Earth work</b> in excavation for removal of forest growth , vegetation, shrubs and debris, levelling , getting out and stacking the excavated soil, dressing of sides and ramming of bottom, dewatering of accumulated water from any source and keeping the surface dry for subsequent works such as soling work etc. and disposal of surplus excavated soil as directed, disposed soil to be neatly levelled and dressed lead upto 100 meters and lift upto 2.0 meter complete.	Sq.M	20000		
2	Supply and stacking of hard stone 22.5 cm size at site as per std Specifications , payments to be made on the stack measurements deducting voids	CUM	6000		
3	Supply and stacking of good quality moorum at site as per std Specifications	CUM	2000		
4	Laying soling using 22.5 cm hard stone and blinding material including sorting spreading to template and spreading the moorum over the top of lais stone and consolidated with power rollers of 8 to 10 tons capacity etc and complete . Payments will be made based on as per actual arealais multiple by consolidated thickness	CUM	6000		
5	Providing and tilling of quarry dust as levelling course compacting the same with 8 to 10 ton road roller complete in all respects as directed by Engineer-in Charge	CUM	6000		
6	Laying water bound macadam with specified stone aggregate stone screening and blinding material including screening sorting , spreading to template and consolidation with power roller 8 to 10 T capacity ( payment for stone aggregate , screening , kankar , moorum and red bajri to be made separately) for Base Course 63 mm to 45 mm size including stone screening 13.2 mm	Sq.M	3000		
7	Supplying and erecting in position 2.4 m high galvanised chain linked fencing of minimum 8 gauge of mesh size 75 mm. The diameter of the steel wire for chain link fencing shall not be less than 12 gauge.	R M	700		
8	Providing of Gate of Fabricated Pipe structure complete with barbed wire etc including a coat of primer and two coats of enamel paint.	kg	250		
	<b>TOTAL</b>				
Notes:	<p>1. In case of omission in quoting any rate, the evaluation will be done considering the highest quoted rate obtained against that item but the work, if awarded, will be on the lowest quoted rate obtained against that item.</p> <p>2. The rate shall be entered in figures as well as in words. In case of difference in rates between words and figures, the lesser of the two will be treated as valid rate.</p> <p>3. The bidders shall enter both 'Unit Rate' &amp; 'Amount'. In case of any mismatch between 'Total Amount based on Unit Rate' &amp; 'Total Amount as quoted', the lower of the two shall be considered for evaluation and award.</p> <p>4. The quantities indicated against each item above are tentative and same are liable to vary depending upon the site requirement. The contractor has to handle all items indicated by BHEL Engineer for completion of work.</p>				