

TENDER SPECIFICATION

BHEL: PSSR: P&S : EC110067

RATE CONTRACT

FOR

SUPPLY AND CONSTRUCTION OF
REMOVABLE/RE-ERECTABLE TYPE
PRE-ENGINEERED PRE-FABRICATED
OFFICE BUILDING USING PLASTO
CRETE PANELS WITH ASSOCIATED
CIVIL WORKS INCLUDING FOUNDATION
MODULAR FURNITURES

PART - II PRICE BID

BOOK NO:



BHARAT HEAVY ELECTRICALS LIMITED
(A Government of India Undertaking)
Power Sector - Southern Region
690, Anna Salai, Nandanam, Chennai - 600 035.



Bharat Heavy Electricals Limited

(A Govt. of India Undertaking)

Power Sector – Southern Region

EVR Periyar Building

690 , Anna Salai, Nandanam, Chennai – 600 035.

TENDER SPECIFICATION NO: BHEL: PSSR: P&S: EC110067

NAME OF WORK

Supply and Construction of Removable/Re-erectable type pre-engineered pre- fabricated OFFICE BUILDING using plastocrete panel with associated civil works including , foundation ,modular furniture's on rate contract basis

(PRICE BID)

PART II

Issued to
M/s.

For and on behalf of
BHARAT HEAVY ELECTRICALS LIMITED


Manager/ Purchase & Stores

N. GUNASEKARAN

Manager/Purchase & Stores

at Heavy Electricals Limited

Power Sector-Southern Region

690, Anna Salai, Nandanam,

Chennai-600 035.

(This tender document is not transferable)

Place: Chennai-600 035.

Date:

BHEL PSSR P&S: EC110067

OFFICE BUILDING

RATE SCHEDULE FOR OFFICE BUILDING - SIZE OF THE SHED
10 M C/c x 40 M C/cx 3 M (APPROX) EACH. -Lump sum price

Sl. No.	Description of Item	Qty.	AMOUNT FOR ONE OFFICE Lump sum Price
1	SUPPLY OF REMOVABLE / RE-ERECTABLE TYPE PRE-ENGINEERED, PRE-FABRICATED OFFICE BUILDING USING PLASTROCRETE PANELS	1NO	
A	EXWORKS BASE PRICE VALUE OF SUPPLY OF ELECTRO MECHANICAL ITEMS.	LS	
B	1) Construction charges of Electro mechanical items as per specification.	LS	
	2) Construction charges of Civil works including supply as per specification.	LS	
C	TOTAL PRICE FOR ONE OFFICE BUILDING (Excluding Cenvat Benefit and other taxes on Sl No. A and Service Tax on Sl. No.B1 & B2)) (SL.NO.A+B1+B2)		

**NOTE: 1.Service Tax (on Sl.No.B1&B2) is payable by BHEL at the applicable rate as extra. Presently @10.3%.
2.The applicable Excise duty and other taxes and duties, CST/VAT in different states may please be given in the attached Format.**

RATE FOR TRANSPORTATION

SLNO	DESCRIPTION	Rate Per KM
2.1	TRANSPORTCHARGES INCLUDING INSURANCE & Service Tax	

Signature of the Bidder

NOTE: PAYMENT FOR DELETION OF ITEMS FOR CIVIL FOUNDATION WORKS

For working out the rates for supplemental / additional items, the least of the following will be operated.

- a) Derived from the BOQ from a near similar item.
 - b) Direct from CPWD schedule of rates. The cost index (based on formula) for the Project site prevailing during the year of reckoning shall be calculated and applied over the DSR -2007 item rate.
 - c) Derived from CPWD rates (While deriving the rate from CPWD , the above procedure (as given in (b) shall be followed. If any item could not be derived from the above, Rate will be worked out based on market rate for such item with 15% plus towards contractor's overhead and profit. Engineer's decision is final in fixing out the rate as stated above and binding on the vendor.
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Evaluation of Bids:

- d) **Bidders' to take care of brands of the items as mentioned in the Technical Specification, while quoting the rates for individual items. Evaluation of bid is based on the rates quoted for the items (irrespective of brands), the overall lowest amount quoted only will be considered for L1**
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FORMAT FOR INDICATION OF TAX ELEMENTS ON STATE WISE.

Name of State	ED applicable	CST	VAT	Any other taxes
Andra pradesh				
Arunachalapradesh				
Assam				
Bihar				
chhattishgarh				
Goa				
Gujarat				
Haryana				
Himachalapardesh				
Jammu&Kashmir				
Jharkhand				
Karnataka				
Kerala				
Madyapradesh				
Maharastra				
Manipur				
Meghalaya				
Mizoram				
Nagaland				
Orissa				
Punjab				
Rajastan				
Sikkim				
Tamilnadu				
Tiripura				
Uttranchal				
Uttarpradesh				
West bengal				
Union Territories Andaman&Nicobar				
Chandigarh				
Dadar&Nagar Havveli				
Delhi				
Lakshadeep				
Pondicherry				

Note: Vendor to indicate the ED Modvat benefit for the supply to avail the same by BHEL. If it is not there it should be clearly indicated since the Modvat benefit passed on to BHEL will be taken in to consideration while evaluation.

Rate Schedule –Break up details



BHARAT HEAVY ELECTRICALS LIMITED

Rate schedule- slno A

POWER SECTOR : SOUTHERN REGION CHENNAI - 600 035

NAME OF WORK : CONSTRUCTION OF OFFICE SHED OF SIZE 10M X 40M X 3M

SUPPLY - BILL OF QUANTITY FOR SITE OFFICE

<u>ITEM NO</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>RATE</u> (₹)	<u>AMOUNT</u> (₹)
12	<u>Main Structure & Wall</u> :Providing Structural wall made out of 25mm thick Plastocrete, concrete filled, Polymeric section filled with high density cellular concrete. The fixture will joined together by tongue and groove method to ensure 100% leak proof. The outer framing structure shall be fabricated with pressed steel of size 70x40x1.6mm thick with PVC inner sleeve for securing plastocrete panel with the span of 1m centre to centre. The above columns will be grouted to the exiting PCC flooring by means of ISMC75 and expansion fasteners. Outer Doors shall be of moulded FRP with necessary hinges, handle and pad locks. The aluminium windows with grills shall be of sliding type, covered with float glass of 4mm thick. The entrance will be provided with 2nos -portico should have a aesthetic look of size min 4m X 3m.	386	Sqm		
13	<u>Roof</u> : Providing Roof truss made up of enamel painted 40mm square tubular section designed to suit at roof structure with 0.47mm thick GI colour coated roof sheet fixed with fasteners including gutters, rain water sprouts etc all complete.	533	Sqm		
14	<u>False Ceiling</u> : Providing Frame works made out of enamel painted GI grid work with 250 x 6mm thick polymeric panels and these panels are joined together by tongue and groove using self tapping screws. Cutouts should be made where ever necessary for Fixing of electrical fittings. Falseceiling for external toilet area not included.	440	Sqm		
15	<u>Partition</u> : Providing Double side partition made up of enamel painted 25 x 50mm MS and GI Grid and double side paneling with polymeric section of minimum 250x6 mm thick with an air gap of minimum 4 mm these panels are joined together by tongue and groove using self tapping screws all complete as per the instruction of engineer in-charge.	215	Sqm		
16	<u>Modular Furnishings</u> : Providing 1-mastro type table for Site in-charge, conference hall table of seating capacity minimum 20nos, Modular Office type Cubicle, Including cabins, tables, racks, Chairs required as per schematic drawing/SPECIFICATION etc all complete.	(Lump Sum value only to be considered)	LS		
a)	Maestro type table for Site in-charge including fixed side return table, mobile pedestal etc.,	1	Nos		
b)	Conference hall table-size 18'x6' of seating capacity minimum 20nos	1	Nos		
c)	Modular Office type Cubicle including part cabins-1200mm X 750mm (Godrej SPACIO Tile based system) with supporting pedestal, Keyboard tray, CPU trolley etc., as per enclosed furniture layout drawing.				
i)	4-Seater cubicle	8	Nos		
ii)	2-Seater cubicle	4	Nos		
iii)	1-Seater cubicle	3	Nos		
d)	File cabinet metal body optimizer- push and pull type with single static and twin mobile unit having one main rack and one add-on along with label holder, locking stiffener on single last unit, railing channel for free movement etc., all complete as per drawing.	1	Nos		
e)	Chairs for senior executives	11	Nos		
f)	Chairs for executives and conf. hall	68	Nos		
g)	Chairs for visitors	18	Nos		
h)	Three seater sofa	2	Nos		
i)	Tea-poi	1	Nos		

17	<u>Electrical & works:</u> Supplying, fixing and commissioning of electrical works required for modular office all complete as per specification & approved drawing as below. Bidder to supply & install electrical items like Main switch with Earth leakage protection (30A TPN), suitable sockets/switch units for A/C points, wires, conduit, tees, bends, clamps, JBs, 5amps socket, Modular Switch boards & points for computers & telephone for each table/desk, earthing wires, Lighting system shall be designed to meet minimum 300Lux of modular type suitable for False ceilings. Also, the bidder should take care of aesthetics and energy conservation. A detailed schematic with BOM (brands/makes) of the electrical fittings shall be submitted for approval from BHEL.	(Lump Sum value only to be considered)	LS		
a)	Twin tube light 2 X 40 watts	70			
b)	Open tube light 1 X 40W	10			
c)	Down light	10			
d)	PI lamp	11			
e)	AC POINTS	35			
f)	5 Amps points (UPS & Raw)	220			
g)	15 Amps points	35			
h)	12 inch exhaust fan	8			
i)	12 inch exhaust fan with ducting	6			
j)	Earth pit	2			
k)	TPN VERTICAL DB	3			
l)	7 SEGMENT DB with ELCB	5			
18	<u>Networking:</u> Supplying of networking works required for modular office all complete as per specification & approved drawing.	(Lump Sum value only to be considered)	LS		
a)	9U Wall mountable rack with 5Amps Horizontal Power strip	1			
b)	24 Port Loaded Patch Panel with 1 U Horizontal Cable Manager	6			
c)	Telephone Junction boxes (MDF) Krone type with lock & key	1			
d)	10 pair krone strip	5			
e)	50 pair raiser cable connect EPABX	10			
f)	Erection of LAN system equipment such as Jack/patch Cord. Etc including I/O and Cat6 cable	75			
g)	Erection of Voice line system equipment such as I/O and 2pair Telephone cable	70			
19	Providing Split Air-conditioner with a minimum capacity of 1 Ton and above for every 100Sq.ft area with complete installation including ancillary works, testing and commissioning as per manufacturers guidelines and specification. (Make:Voltas). (Combination of 1Ton, 1.5Ton & 2 Ton Preferably)	35	Nos		
	A.	SUPPLY TOTAL			-



BHARAT HEAVY ELECTRICALS LIMITED

Rate schedule- sino B1

POWER SECTOR : SOUTHERN REGION CHENNAI - 600 035

NAME OF WORK : CONSTRUCTION OF OFFICE SHED OF SIZE 10M X 40M X 3M

ERECTION & COMMISSIONING - BILL OF QUANTITY FOR SITE OFFICE

ITEM NO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
12	Main Structure & Wall : Providing Structural wall made out of 25mm thick Plastocrete, concrete filled, Polymeric section filled with high density cellular concrete. The fixture will be joined together by tongue and groove method to ensure 100% leak proof. The outer framing structure shall be fabricated with pressed steel of size 70x40x1.6mm thick with PVC inner sleeve for securing plastocrete panel with the span of 1m centre to centre. The above columns will be grouted to the existing PCC flooring by means of ISMC75 and expansion fasteners. Outer Doors shall be of moulded FRP with necessary hinges, handle and pad locks. The aluminium windows with grills shall be of sliding type, covered with float glass of 4mm thick. The entrance will be provided with 2nos -portico should have a aesthetic look of size min 4m X 3m.	386	Sqm		
13	Roof: Providing Roof truss made up of enamel painted 40mm square tubular section designed to suit at roof structure with 0.47mm thick GI colour coated roof sheet fixed with fasteners including gutters, rain water sprouts etc all complete.	533	Sqm		
14	False Ceiling: Providing Frame works made out of enamel painted GI grid work with 250 x 6mm thick polymeric panels and these panels are joined together by tongue and groove using self tapping screws. Cutouts should be made where ever necessary for Fixing of electrical fittings. Falseceiling for external toilet area not included.	440	Sqm		
15	Partition: Providing Double side partition made up of enamel painted 25 x 50mm MS and GI Grid and double side paneling with polymeric section of minimum 250x6 mm thick with an air gap of minimum 4 mm these panels are joined together by tongue and groove using self tapping screws all complete as per the instruction of engineer in-charge.	215	Sqm		
16	Modular Furnishings: Providing 1-mastro type table for Site in-charge, conference hall table of seating capacity minimum 20nos, Modular Office type Cubicle, Including cabins, tables, racks, Chairs required as per schematic drawing/SPECIFICATION etc all complete.	(Lump sum value only to be considered)	LS		
a)	Maestro type table for Site in-charge including fixed side return table, mobile pedestal etc.,	1	Nos		
b)	Conference hall table-size 18'x6' of seating capacity minimum 20nos	1	Nos		
c)	Modular Office type Cubicle including part cabins-1200mm X 750mm (Godrej SPACIO Tile based system) with supporting pedestal, Keyboard tray, CPU trolley etc., as per enclosed furniture layout drawing.				
i)	4-Seater cubicle	8	Nos		
ii)	2-Seater cubicle	4	Nos		
iii)	1-Seater cubicle	3	Nos		
d)	File cabinet metal body optimizer- push and pull type with single static and twin mobile unit having one main rack and one add-on along with label holder, locking stiffener on single last unit, railing channel for free movement etc., all complete as per drawing.	1	Nos		
e)	Chairs for senior executives	11	Nos		
f)	Chairs for executives and conf. hall	68	Nos		
g)	Chairs for visitors	18	Nos		
h)	Three seater sofa	2	Nos		
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17	<u>Electrical & works:</u> Fixing and commissioning of electrical works required for modular office all complete as per specification & approved drawing as below. Bidder to supply & install electrical items like Main switch with Earth leakage protection (30A TPN), suitable sockets/switch units for A/C points, wires, conduit, tees, bends, clamps, JBs, 5amps socket, Modular Switch boards & points for computers & telephone for each table/desk, earthing wires, Lighting system shall be designed to meet minimum 300Lux of modular type suitable for False ceilings. Also, the bidder should take care of aesthetics and energy conservation. A detailed schematic with BOM (brands/makes) of the electrical fittings shall be submitted for approval from BHEL.	(Lump Sum value only to be considered)	LS		
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b)	Open tube light 1 X 40W	10	Nos		
c)	Down light	10	Nos		
d)	PI lamp	11	Nos		
e)	AC POINTS	35	Nos		
f)	5 Amps points (UPS & Raw)	220	Nos		
g)	15 Amps points	35	Nos		
h)	12 inch exhaust fan	8	Nos		
i)	12 inch exhaust fan with ducting	6	Nos		
j)	Earth pit	2	Nos		
k)	TPN VERTICAL DB	3	Nos		
l)	7 SEGMENT DB with ELCB	5	Nos		
18	<u>Networking:</u> Fixing and commissioning of networking works required for modular office all complete as per specification & approved drawing.	(Lump Sum value only to be considered)	LS		
a)	9U Wall mountable rack with 5Amps Horizontal Power strip	1			
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c)	Telephone Junction boxes (MDF) Krone type with lock & key	1			
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19	Providing Split Air-conditioner with a minimum capacity of 1 Ton and above for every 100Sq.ft area with complete installation including ancillary works, testing and commissioning as per manufacturers guidelines and specification. (Make:Voltas). (Combination of 1Ton, 1.5Ton & 2 Ton Preferably)	35	Nos		
<u>BI.</u>		<u>E&C TOTAL</u>			



BHARAT HEAVY ELECTRICALS LIMITED Rate schedule -sino -B2

POWER SECTOR : SOUTHERN REGION CHENNAI - 600 035

NAME OF WORK : CONSTRUCTION OF OFFICE SHED OF SIZE 10M X 40M X 3M

CIVIL-BILL OF QUANTITY FOR SITE OFFICE

ITEM NO	DESCRIPTION	QTY	UNIT	RATE (₹)	AMOUNT (₹)
1	Earthwork in cutting/excavation in all kinds of soils for foundations, sewers, drains etc., Rate to include baling, strutting, shoring, sectioning the sub grade to proper level, grade, watering & consolidating to receive the concrete bed and refilling the foundation, basement & trenches with excavated earth and consolidating, all as per standard specifications.	265	Cum		
2	Supply at site of work and filling with good river sand and compacting well with watering, ramming, for foundation and basement.	8	Cum		
3	Providing and laying PCC of mix 1:4:8 using 40mm size hard broken granite stone jelly including ramming,levelling, curing etc., for foundations including providing necessary slopes etc., complete as per standard specifications at heights.	20	Cum		
3A	Providing and laying PCC of mix 1:2:4 using 40mm size hard broken granite stone jelly including ramming,levelling, curing etc., for foundations including providing necessary slopes etc., complete as per standard specifications at heights.	10	Cum		
4	Providing and laying 75mm thick PCC of mix 1:3:6 using 40mm size hard broken granite stone jelly including ramming,levelling, curing etc., for flooring including providing necessary slopes etc., complete as per standard specifications at heights.	35	Cum		
5	Providing brick work in C.M 1 : 6 in foundation and superstructure using clay bricks/ash bricks.hollow bricks as per standard specifications. Rate to include cost of scaffolding, labour, curing etc., complete.	85	Cum		
6	Providing and laying R C C of mix 1 : 2 : 4, using 20mm down size hard broken granite stone jelly for all types of RCC works at all heights including centering, shuttering, scaffolding, finishing, curing etc. complete, but excluding cost of reinforcement fabrication all as per standard specifications. Rate to include for providing necessary slope in the concrete as directed by Engineer in charge.	2	Cum		
7	Cutting, bending, binding and placing in position with necessary binding wire of CTD bars for reinforcement including cost of MS binding wire of 18 / 20 gauge for all types of R C C works at all heights. Rate to include cost of steel, labour, fixing charges etc., complete.	2500	Kg		
8	Providing plastering with CM 1 : 6, for the 15mm thickness all as per standard specifications, including rendering smooth, rounding of corners etc., complete.	270	Sqm		
9	Supplying medium duty Galvanised Iron pipes of the following sizes at site of work, laying to proper line and level in ground or jointing and fixing on walls & floors for water supply pipe lines with all necessary specials, unions and appurtenances, testing as per standard specifications, making necessary earthwork in ground, holes, chases etc. on floor & wall and making good all damages and finishing to match with the existing work, refilling the trenches with excavated earth and filling chases & grooves in walls and all other incidental charges etc. complete. Rate to include cost of GI pipes, specials and all other works.				
a)	20mm dia GI pipe line with specials.	50	Rm		
10	Supplying at site of work and laying UPVC pipes of the following sizes in trenches and jointing with CM 1:2 and testing with water as per standard specifications. Rate to include cost of pipes, specials, all jointing materials like hemp yarn, sand, cement, conveyance of water, tools & plants for testing, labour and all incidental charges etc. complete & includes earthwork excavation for trenches and back filling.				
a)	150 mm dia UPVC pipe line with all specials.	50	Rm		
11	Providing ceramic floor tiles matt finish of size 600x600mm (min-8mm) - of 1st quality conforming to IS:15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, to be laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement and matching pigment etc all complete.	415	Sqm		
11a	Providing antiskid ceramic tile flooring for Toilet and passage of size 300x300mm of min-6mm thickness of 1st quality conforming to IS:15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, to be laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement and matching pigment etc all complete.	65	Sqm		

20	Toilet: 1no - toilet for site in-charge room, 1no - toilet for conference hall , Toilet block all complete as per technical specification and approved drawing. All toilets should have required towel rods, soap dispensers, glazed mirrors etc with automatic flushing System including total required plumbing. SI & Conference hall toilet Ewc contains Health faucet,Coat hook,Paper holder Wash basin contains Mirror,Soap dispensor,Towel ring & Bottle trap,In gents toilet Urinal Magnum type will be provided	(Lump Sum value only to be considered)	LS		
a)	1nos – Toilet with 1 EWC, 1 Wash Basin with required Towel rod, soap dispenser, Glazed mirror for Site-in-charge room.	1	Each		
b)	1 nos Toilet with 1 EWC, 2-urinals, 1 Wash basin shall be provided for conference hall.	1	Each		
c)	A toilet Block consisting 4 urinals, 2 EWC, 1 IWC & 2 Wash basin shall be provided.	1	Each		
21	Supplying at site of work and fixing in position of the following size of Gun metal wheel valve of approved make and quality (leader,dripless or orient) as per standard specifications.Rate to include cost of wheel valve, jointing materials, labour for carrying , fixing & testing complete.				
a)	20mm dia nominal size wheel valve.	2	No		
22	Construction of a masonry inspection chamber of size 60 x 60 cm internal using brick work in CM 1:6,and plastering in CM 1:5, bottom finished with PCC 1: 2: 4 making necessary champfering etc., complete.	2	No		
23	Construction of a septic tank of size 6.00 x 2.40 x 2.70 metre and a cess pool of 3.00 metre dia as per drawing No. PSSR-PMX-CVL004-DRG002. Rate to include cost of Excavation,PCC,Brickwork,RCC works, Reinforcement,SW pipes, AC pipes,cowl,filling with aggregates cover slab,testing of the septic tank etc., complete as per drawing.	1	No		
24	Supplying and fixing SINTEX WATER TANK at site for storing water.Rate to include cost of tank and other incidental charges etc., complete.				
a)	5000 Litres capacity.	1	No		
25	Supporting structure for water tank designed as per standard IS specification to withstand the water tank load and wind load in full & the legs of structure shall be suitably anchored to the ground.Cost include structural steel, transportation, erection, painting all complete.	1	LS		
	B2.	CIVIL TOTAL			