

QUALIFICATION CRITERIA

NAME OF THE WORK: ELECTRIFICATION OF FABRICATION SHOP &MP SHOP EXTENSION BAYS

CONTRACTOR MUST FILL UP ADEQUATE DETAILS IN THIS FORM

SL. No	DESCRIPTION OF NORMS	QUALIFICATION	REMARKS
		STATUS (to fill up)	
1	i) Average Annual financial turnover during the last 3 years ,ending 31st march of the 2010 ,should be at least 5.827 lakhs .		
	ii) Experience of having successfully completed similar works during last 7 years ending last day of July 2010 should be either of the following:-		
	a)Three similar completed works costing not less than the amount equal to 7.77 lakhs.		
	or		
	b)Two similar completed works costing not less than the amount equal to 9.71lakhs.		
	or		
	c)One similar completed work costing not less than the amount equal to 15.54 lakhs.		
	iii)Solvency certificate not less than the amount equal to 3.88 lakhs in the prescribed proforma in a cover.		
Document proof to be submitted for all the above along with Technical bid .			
2	Contractor should possess valid electrical ESA/ESB Grade license from State Electrical Licensing board.		
	Document proof to be submitted along with Technical bid		
<p>Note (1): Similar work shall mean Electrical installation works includes main panel erection, switch erection industrial wiring , cable laying & Termination, Roof lighting.</p>			

Note(2) : The contractor should meet all the above **qualification norms** for acceptance of technical bid. If any one of the above qualification norms is not met , their offer will not be considered.

Note(3) : All the payment will be made through EFT (Electronic fund transfer) mode only.

SIGNATURE OF THE TENDERER
WITH SEAL AND ADDRESS

FORM OF SOLVANCY CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information M/s./Sri.
..... having marginally noted address, a
customer of our bank are/is respectable and can be treated as good for any
engagement upto a limit of Rs..... (Rupees
.....). This certificate issued without
any guarantee or responsibility on the bank or any of the officers.

Signature
for the Bank

Note : In case of partnership firm, certificate to include names of all partners as
recorded with the bank.

BHARAT HEAVY ELECTRICALS LIMITED	
BOILER AUXILIARIES PLANT, RANIPET – 632 406	
M&S DEPARTMENT	
GENERAL QUALIFICATION NORMS	
1a	Name of applicant
1b	Full address
1c	Nationality
1d	email cell No phone no fax No
2	Whether the firm is a Private or Public Limited Concern or undivided Hindu Family, individual or a registered partnership firm (attested copies of Memorendum of Association and Articles of Association ,Partenership deed to be enclosed)
3	Name of person holding the Power of Attorney, and his present Nationality with his liabilities (attested copy of Partnership Deed to be enclosed)
4	Names of partners, their present Nationality with their liabilities (attested copy of the Partnership Deed to be enclosed)

5	Name of Bankers and full address	
6a	Place of Business	
6b	Income Tax assessment certificate for the last 3 years to be enclosed	
7	List of works executed with Government Agencies or Public Sector Undertakings Reputed Private Companies during the last 7 years	
i.	Details of works executed	To be shown in a separate statement
ii	Year of Execution	
iii	Authority under which carried out	
iv	Performance certificate	
8	Does the applicant maintain any office for preparing designs, drawings, estimates, tender documents, bills, etc.,If maintained the address,phone no etc to be furnished	
9	Name/Names of technically qualified persons employed with their qualification and experience	
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10	List of Tools & Equipments relevant to the work .	
11	Whether the applicant or any of his partners or shareholders is/are a dismissed Government Servant's)/employee(s) of this organisation.	
12	The Organisation Chart to be enclosed	
13	The Audited Profit and Loss Account and Balance Sheet for the last three years to be enclosed	
14	Whether the applicant has registered his workmen under employees State Insurance Act. If so, the Registration No./Enrolment Number may be furnished.	
15	PAN no and documentary proof for the same to be enclosed.	
16	Registration under Tamil Nadu VAT ACT,TIN number shall be enclosed.	
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17	SERVICE TAX registration details shall be enclosed. (if any contractor servicable Turnover not crossing the threshold limit as per service tax rules , the same should clearly indicated by the contractor in case of service tax is not applicable).	
18	The sevice tax heads under which the enlisting person registered with Excise Authorities and copies of Registration to be enclosed	
19	Whether the applicant has registered his workmen under Employees Provident Fund and Miscellaneous Provisions Act? If so, the registration/ enrolment number may be furnished.	
I/We declare that the particulars furnished above are true to the best of my/our knowledge.		
Place :		Signature of Applicant
Date :		Seal of the Company (in the case of a Firm)
NOTE:		
1	All relevant certificates should be attached with the application	
2	The terms which are not applicable may be scored out	
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BILL OF MATERIAL

Name of the work: "Electrification of New Fabrication, and M.P Shop Extension 30M+60M"

SNO	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMOUNT
1	Erection and commissioning of floor mounting, industrial type switch board (MP boards I,III) on the cable trench in newly, constructed Fabrication and M.P.shop extension bays with necessary support channel and MS angles as specified below.				
	The medium voltage industrial type Main Panel boards will be supplied by BHEL free of cost at stores.				
	Necessary support channels / MS angles with required fasteners etc for erection to be supplied by the contractor.				
(A)	MP I - Medium voltage, Industrial type switch board comprising of the following configuration:	1	No		
	Incomer switch of 800 A rating : 1 No Bus bar Rating:800A				
	Outgoing switches:				
	400A Rating: 2Nos 200A Rating: 5Nos 100A Rating: 5Nos 63A Rating: 5Nos				
(B)	MP III - Medium Voltage industrial type switch Board comprising of the following configuration:	2	No		
	Incomer switch of 400A rating :1No, Bus bar rating: 800A				
	Outgoing Switches:				
	200A Rating: 4 No's 100A Rating: 5 No's 63A Rating : 5 No's				
2	Erection & commissioning of <u>TPN Switches</u> on column / wall / floor, including supply of 2 mm thick fabricated MS adopter boxes for both top& bottom cable entry, with necessary MS angle iron frame work, fasteners, civil masonry work etc on the column as specified below.				
	Necessary MS angle iron frame work, fasteners and 1:2:4 concrete work etc to be supplied by the contractor. All Switches will be issued by BHEL free of cost at stores.				
(A)	Fixing of 63A TPN Switch on the column / floor with necessary angle iron frame work.	15	NO		
(B)	Fixing of 100A TPN Switch on the column / floor with necessary angle iron frame work.	15	NO		
(C)	Fixing of 200A TPN Switch on the column / floor with necessary angle iron frame work.	15	NO		

SNO	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMOUNT
3	Erection and commissioning of <u>Fuse Distribution Boards</u> (FDBs) on the column / wall / on trench including supply of 2 mm thick fabricated MS adopter boxes for (i) incoming cable entry and (ii) between TPN switch & FDB.				
	Necessary MS angle iron frame welding work, fasteners, Civil masonry work, Multi-strand copper cable links for interconnections, suitable size earth flat connection, cable clamping arrangement etc for FDB erection are to be supplied by the contractor.				
	Only Switch and FDB & Fuse switches will be supplied by BHEL free of cost at stores.The FDB and lighting DB shall be fixed at various locations, as per the instruction of Engineer-in-charge.				
(A)	12 Way 16A TPN FDB with 100A / 63A Switch as incomer.	10	NO		
(B)	8 Way 32A TPN FDB with 200A Switch as incomer.	2	NO		
(C)	8 way 63A TPN FDB with 200A Switch as incomer.	10	NO		
(D)	24 Way 16A MCB DB as outgoing with 63A,4 pole MCB as incomer.	8	NO		
4	Laying of 3 ½ core 25 / 50 / 185 / 300 Sq mm , Aluminum conductor, PVC insulated armored cable in the cable trench from sub-station to switchboard within cable racks. Work is inclusive of removing the RCC Slab covers & Closing back them after laid the cable in trench.				
	Necessary PVC AA cable will be supplied by BHEL free of cost at stores.				
	This work is inclusive of laying of cables in ground at road crossing / wherever trench is not available, involving earth excavation, sand spreading, Brick covering etc, as per the 'General Conditions' to a distance of approximately 50 Mtr.				
(A)	Laying of single run 3.5 Core 300 Sq mm PVC AA cable in the Cable trench.	700	M		
(B)	Laying of single run 3.5 Core 185 Sq mm PVC AA cable in the cable trench.	2000	M		
(C)	Laying of single run of 3.5 core 95sqmm PVC AA cable.	500	M		
(D)	Laying of single run of 3.5 core 50sqmm PVC AA cable.	500	M		
(E)	Laying of single run of 3.5 core 25sqmm PVC AA cable.	500	M		
(F)	Laying of single run of 3core 16sqmm PVC AA cable.	2000	M		
(G)	Laying of single run of 4 core 10sqmm PVC AA cable.	1000	M		
(H)	Laying of single run of 4core 4sqmm PVC AA cable.	2000	M		
5	Supply & Making end termination for the following PVC Insulated Aluminum armored cables including supply of suitable size cable gland, PIN / PALM type copper sockets, gland earthing material etc.,				

SNO	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMOUNT
(A)	Making end termination of single run of 3.5core 300 sq.mm PVCAA cable.	10	No		
(B)	Making end termination of single run of 3.5core 185 sq.mm PVCAA cable.	50	No		
(C)	Making end termination of single run of 3.5core 95 sq.mm PVCAA cable.	20	No		
(D)	Making end termination of single run of 3.5core 50 sq.mm PVCAA cable.	20	No		
(E)	Making end termination of single run of 3.5core 25 sq.mm PVCAA cable.	30	No		
(F)	Making end termination of 3 core 16sqmm PVCAA cable.	80	No		
(G)	Making end termination of 4 core 10sqmm PVCAA cable.	80	No		
(H)	Making end termination of 4 core 4sqmm PVCAA cable.	80	No		
6	Fabrication and fixing of cable rack	400	M		
	Cable racks are the scope of the contractor: Supply, Fabrication and fixing of MS angle cable laying racks in the trench as per the Drawing Enclosed. (Drawing No-4)				
	The cable racks to be fabricated in the contractor's premises outside BHEL, Painted with two coats of red oxide paint, transported to BHEL and welded to the insert plates available in the cable trenches at 600 mm intervals.				
	Fabrication and fixing of cable rack (in one side of cable trench) in expansion of fabrication and M.P Shop expansion bays (50x50x6 mm 'L' angle)(Maximum Length of 400 mm)				
7	Supply and fixing of earth flats				
	Supply, laying and fixing of hot dip GI Flat as specified and quantified below in the cable trench by Welding on the insert plate. 25 x 3mm & 50 x 6mm, hot dip GI 8 SWG wire , earth flat are the scope of the contractor				
(A)	Supply, laying and fixing of 50x6 mm hot dip GI earth flat in the cable trenches.	500	M		
(B)	Supply, Laying and fixing of 25 x 3 mm hot dip, GI earth flat for earthing the Main Panels and distribution boards to the trench earth.	200	M		
(C)	Supply, Laying of 8 SWG G.I wire for earthing the Switches.	1000	M		
8	Supply & Fixing of 50 x 6mm, 1 Mtr long copper flat	40	M		
	Supply and fixing of 50x6 mm copper Earth flat of 1 mtr long across the column. The copper flat to be drilled with 16 No of 12 mm diameter holes and shall be provided with 16 No of M10 x 50 mm long brass bolt, nut and washers for earth connection.				

SNO	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMOUNT
9	Supply of 3.5 x 300sq.mm M .Seal cable jointing kit and jointing of 3.5 x 300sq mm cable Straight through joint .	1	No		
10	Fixing of 400W Metal Halide high bay light fitting and Emergency light fitting:				
	Fabrication and Supply of various length of suspension rods of 10mm(dia) MS (1)370 mm length – 55Nos, (2) 800 mm length – 55Nos, (3) 1330 mm length-40 No's and Clamping arrangements using 25 x 5 mm MS Flat suitably bent, with necessary fixtures, fasteners etc with 2 coats of aluminum paint.	150	No		
	Assembling and suspending the 400 W MH light fitting under the roof, along with the above fabricated clamp and suspension rod . And also Supply and fixing of adequate length of 6 mm Diameter metallic chain together with a small D-shackle at one end, between light fitting & roof truss to secure the light fitting from falling.				
<u>Important Note:</u> The contractor shall ensure uniform level of Hi-bay lights and emergency lights by suitably and accurately fabricating various uniform length of suspension assembly using 25 x 5 mm MS Flat clam and down rod of 10mm dia..					
11	Wiring with 2.5 sq.mm multi stranded copper conductor unsheathed cable in the medium quality, 1.5 mm thick Metal Conduit pipe of 20 mm dia (Reputed make)supported by (25 x 5 mm MS flat and GI clamping in span of 1 metre) with continuous running of 14SWG copper wire as earthing- for Roof lights.(Max 800W/circuit).	4200	M		
	One running metre of wiring consist of 1m Metal Conduit + 1 run of 1m 14 SWG bare copper earth wire + 2 runs of 1m long 2.5 Sq mm unsheathed copper wire & with suitable clamping arrangement over the metal conduit on wall / column / roof truss etc with necessary accessories..				
	(one MCB shall control two roof light fittings).All the light fittings are to be connected through metallic flexible hose from the ceiling rose. Necessary materials like Metal conduit, earth wire, accessories, clamps, fasteners etc, required for the wiring are to be supplied by the contractor. [<u>Only</u> the PVC insulated multi-strand 2.5 Sqmm copper wire will be supplied by BHEL free of cost from stores]				

SNO	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMOUNT
12	All the MP boards, FDBs, DBs and Switches should be properly identified with white paint using stencil with standard size letters as per the engineer-in-charge instructions. All the electrical installations are to be properly documented (i.e. drawing, location arrangement details etc).Preparing layout drawing and Electrical Single line drawing in AutoCAD and submitting to concerned BHEL authorities 2 sets of each in colour print and 1 set of soft copy after getting approval from concerned BHEL authorities on black & white drawings for Fabrication and MP shop bays .	Lump sum			
13	Supply and wiring with 2.5 Sq mm PVC insulated unsheathed copper wire & 14 SWG bare copper wire for earthing within Metal conduit for Man coolers.	25	No		
	Fixing of 600 mm sweep Industrial type Man cooler, M.C.B. and Starter connecting the same with the wiring and ensuring proper working of man coolers.				
	(Man cooler, MCBs, Starter, PVC insulated multi-strand 2.5 Sq mm copper wire will be supplied by BHEL)				
14	Supply and Erection of Earth Electrode as per the drawing no BAP: M&S: EL: PLNG:001-08 enclosed.	8	No		
	The earth pit earth excavation may have to be done in ordinary earth or soft rock or hard rock.				
15	Supply and fixing of Metal Boxes with suitable iron frame work, fixtures & fasteners etc on shop floor columns for (1 no of 3 phase 20 A, 4 pin Power socket + 20A 3pole MCB) <u>together with</u> (1 no of Single phase 20 A socket + 20A 2pole MCB) including internal wiring. (The power sockets, MCBs will be supplied by BHEL) (Drawing No-1)	40	No		
16	Supply and fixing of Metal Boxes with suitable iron frame work, fixtures & fasteners etc on shop floor columns for (2 no's of 3 phase, 32A 3 pole MCB 4 pin 32A Power socket including internal wiring. (The power sockets, 3 pole MCBs will be supplied by BHEL)(Drawing No-2)	30	No		
17	Supply and fixing of Metal Boxes with suitable iron frame work, fixtures & fasteners etc on shop floor columns for Welding power sockets of 3 Phase, 63 Amps rating + Switch Including internal wiring.	20	No		
	(The 63A welding sockets and 63A switch will be supplied by BHEL) (Drawing No-3)				
18	Supply and fixing of perforated cable tray size 75mm Width x 25mm Height x 2mmThick (powder coated dark grey colour with 75 microns thick)to the incoming and outgoing cables coming out of the cable trench for LDB ,PDB and Man coolers with necessary clamps, bolts, nuts and washers .	550	M		
19	Supply and fixing of perforated cable tray size 150mm Width x 25mm Height x 2mmThick (powder coated dark grey colour with 75 microns thick) to the incoming and outgoing cables coming out of the cable trench for ,PDB with necessary clamps, bolts, nuts and washers .	150	M		

SNO	DESCRIPTION OF WORK	QTY	UNIT	RATE	AMOUNT
20	Supply and fixing of perforated cable tray size 300mm Width x 50mm Height x 2mmThick (powder coated park grey colour, 75 microns thick) to the incoming and outgoing cables coming out of the cable trench for ,PDB with necessary clamps, bolts, nuts and washers.	200	M		
TOTAL AMOUNT					
General note:					
1. All switch boards, Switches ,M.C.Bs, FDB, power cables, lamp fitting and MH lamps shall be supplied by BHEL free of cost at BHEL stores.					
2. Proper material accounting has to be maintained for all the materials supplied by BHEL.					
3. Metallic pipes, cables glands, copper lugs are the scope of the contractor.					
4. Balance power cables, empty cable drums and other materials are to be handed over to the stores by the contractor with standard forms etc, as per the instruction of Engineer in Charge.					
5. BHEL will provide water and electricity at free of cost.					
6. Welding equipments, consumables(welding electrodes, gas and etc.,) and cutting M/Cs with Tools, Tackles are under contractor scope.					
7. contractor shall clearly indicate that the quoted rates rates are whether inclusive or exclusive of taxes.					
8. contractor shall clearly indicate the break up of taxes included and the rates of such taxes like works contract sales tax, service tax, and VAT.					
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SIGNATURE OF THE TENDERER
WITH SEAL AND ADDRESS