

**TENDER SPECIFICATION
BHEL: PSSR: SCT: 2040**

FOR

Design, Procurement, Supply, Receipt at Site, Erection, Painting & Finishing works etc. and Handing over to site Removable/ Re-erectable type, Pre-engineered, Pre-fabricated Steel Closed Storage Shed (1 No. of size 30m x 15m x 6m) including construction of civil foundation, for Renovation, Modernization and Uprating of existing Kodayar Power House - I (from 1x60 MW to 1x70 MW), Tirunelveli Generation circle, Kanyakumari, Tamil Nadu

**VOLUME – II
PRICE BID**



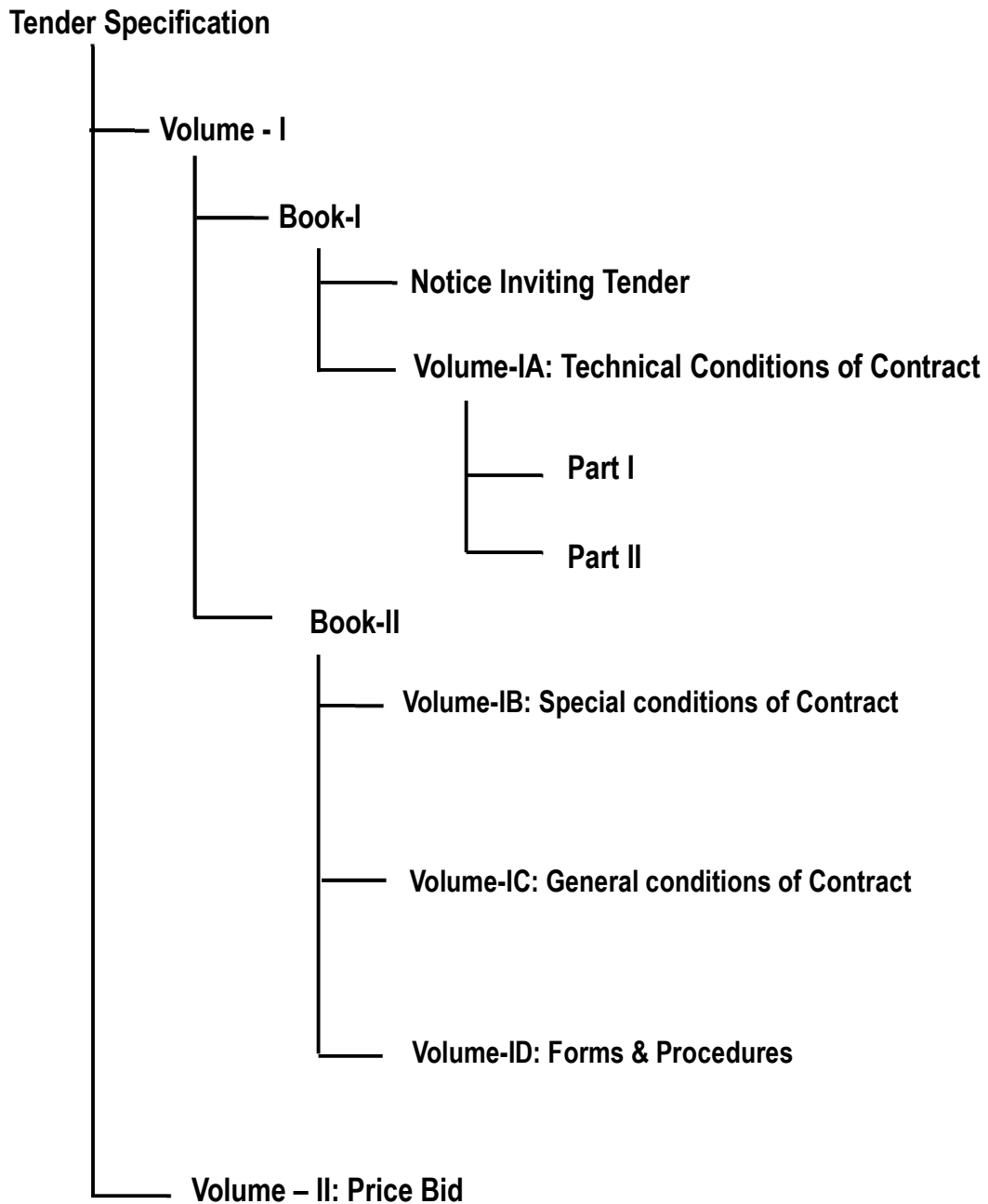
BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

Power Sector – Southern Region

Tek Towers, No.11, Old Mahabalipuram Road,
Okkiyam Thoraipakkam, Chennai - 600097

TENDER SPECIFICATION CONSISTS OF



PRICE BID

CONTENTS	
Description	No. of pages
Part A of Price Bid: Instructions to the Bidders	01
Part B : Format for total amount (Enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender)	(Separate Excel File)
Part C: Bill of quantities with weightage for amount of each items with respect to the total quoted price	05

PART A

Instruction to Bidders:

1. The quantity indicated in the BOQ in Part C of Price Bid is approximate only and is liable for variation. Payment will be as per actual quantity executed and as certified by BHEL Engineer.
2. Tenderers are requested to affix their company seal and authorized signature in all pages.
3. Bidders shall quote 'Total Amount' in the format enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender and upload the same under 'Packet details - > Tender covers -> Finance '(Cover Type Description – Price Bid)'' and same shall be taken into account for evaluation and awarding and hence, shall be complete in all respect for the full scope of work defined in specification and in accordance with terms & conditions of the tender. Any other entry elsewhere in the price bid shall be treated as Null and Void. Quoting of rates in any other form/formats will not be entertained.
4. The above mentioned 'Total amount' is for the entire Bill of Quantity (BOQ) given in Part -C of the Price Bid.
5. BHEL has pre-fixed the weightages for the amount of individual items of Bill of Quantity with respect to the 'Total Amount' in Part C of Price Bid.
6. Based on the pre-fixed weightages, the amount for the individual items of the Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
7. Based on the quantities of individual item and the amount arrived in Sl. No: 6 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
8. Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed as certified by BHEL Engineer.
9. Bidders to also refer Terms of Payment in Chapter VII of Volume IA Part I, Technical Conditions of Contract.

Part C : Bill of Quantities**Tender Specification BHEL:PSSR:SCT:2040 for Stores Shed for RMU of Kodayar HEP
at RMU OF KODAYAR HEP SET- 01**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	Sqm	600	.001484
A2	Cutting of trees having girth more than 300 mm (upto 600mm girth) measured at a height of 1m above ground level including removal of roots, stacking the seviceable material like trunks,branches etc at specified area within the plant boundary and disposal of unseviceable parts/materials within a lead upto 1km etc all complete.	Each	5	.0003744
A3	Earthwork excavation in all kinds of soils including ash (except hard rock) by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm depth, 1.5m in width as well as 10sqm on plan) including getting out and depositing within an initial lead of 50 m and lift upto 1.5m for foundations, drains, sewers etc., Rate to include baling, strutting, shoring, sectioning the sub grade to proper level, grade, watering & consolidating to receive the concrete bed all as per standard specifications.	Cum	100	.0035034
A4	Earth work by means of crow bar, pick axe, pneumatic rock breaker attachment with excavator machine etc but does not require chiselling or blasting including setting out, levelling, dewatering (wherever required), shoring & strutting (wherever required), dressing the sides & bottom including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge	--		
i)	In ordinary rock including weathered rock	Cum	100	.0070418
ii)	In hard rock (blasting prohibited)	Cum	5	.0010096
A5	Back filling around foundations in plinths, trenches, drains, open field etc to proper grade and level with selected good soil from compulsorily excavated earth or earth supplied by BHEL/Customer, lead up to 50 m and lift upto 1.5 m, free from shingle, salts, organic materials, roots, sod or any other foreign substance including re-excavating loose thickness, watering and ramming in layers of 30cm thickness by manual/ mechanical means, dressing etc complete.	Cum	30	.001299

Part C : Bill of Quantities**Tender Specification BHEL:PSSR:SCT:2040 for Stores Shed for RMU of Kodayar HEP
at RMU OF KODAYAR HEP SET- 01**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A6	Earth work in filling upto any depth below ground level for grading to proper grade and level in layers not exceeding 300 mm consolidated thickness with approved borrowed soil (borrowed soil to be supplied by the bidder by mechanical transport upto a lead of 5km) and compacted as specified including supplying murrum, royalty/seignorage fee (if any), sorting, spreading, breaking clods, watering, ramming/compaction by manual/mechanical means, dressing, finishing to required lines, grades and slopes, tesing, all lead and lifts etc all complete as per specification, drawing and as directed by the engineer.	Cum	25	.0015716
A7	Supplying and filling in plinth with fine aggregate i.e manufactured crushed stone sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	70	.0257975
A8	Providing and laying PCC of mix 1:2:4 using 40mm size hard broken granite stone jelly including ramming,levelling, curing etc., for flooring and foundations including providing necessary slopes etc., complete as per standard specifications.	Cum	45	.0565169
A9	Providing and laying PCC of mix 1:4:8 using 40mm size hard broken granite stone jelly including ramming,levelling, curing etc., for flooring, and side drains including providing necessary slopes etc., complete as per standard specifications.	Cum	10	.0107873
A10	Providing and laying R C C of mix M25, using 20mm down size hard broken granite stone jelly for all types of RCC works at all heights including finishing, curing etc. complete, but excluding centering, shuttering, 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.	Cum	30	.0409119
A11	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size)	sqm	25	.0015809
A12	Fairface form work with good quality water proof ply wood of required thickness and smooth surface below finished ground floor level for foundations, footings, base of columns, walls, columns, pilasters, beams, mass concrete, trenches etc.	sqm	180	.0094523
A13	Providing, straightening, cutting, bending, placing in position at any level, binding in position of tor steel reinforcements confirming of grade Fe-500 confirming to IS:1786 including cost of binding wire, labour, transportation to & from stores etc complete all as per specifications, drawings and as directed by Engineer	MT	5	.0764373

Part C : Bill of Quantities**Tender Specification BHEL:PSSR:SCT:2040 for Stores Shed for RMU of Kodayar HEP
at RMU OF KODAYAR HEP SET- 01**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A14	Supply, fabrication and fixing of embedments, inserts, pipe sleeves, angle pieces, anchor bolts of various diameters, plates of dimensions as required etc. including scaffolding, setting in position, transportation from BHEL site stores to work spot etc. all complete.	kgs	250	.003967
A15	Providing brick work in C.M 1 : 6 in foundation and superstructure using clay bricks as per standard specifications. Rate to include cost of scaffolding, labour, curing etc., complete.	Cum	30	.028392
A16	Providing plastering with CM 1 : 6, 15mm thickness all as per standard specifications, including rendering smooth, rounding of corners etc., complete.	Sqm	200	.0125484
A17	Providing and applying 3 coats of water proof cement paint of approved make and color on exterior surface at all heights including material, labour, scaffolding, curing etc. including primer coat complete as per specification.	Sqm	200	.0055268
A18	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	each	1	.0005012
A19	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with Cement mortar 1:6 (1 cement : 6 coarse sand).	Cum	5	.0056728
A20	Providing and fixing wash basin of size 550x400 mm with CI brackets with 15 mm CP brass pillar caps, 32 mm CP brass waste of standard pattern including painting of fittings and brackets, cutting and making good the walls wherever required	Nos	1	.0005385
A21	Supplying and fixing in position 15mm nominal size down type brass bib cock of approved make and quality (leader, dripless, or orient) as per standard specifications. Rate to include cost of bib cock, jointing materials, labour for carrying, fixing, and testing etc., complete.	Nos	1	.0000517
A22	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. of 15 mm dia nominal bore	metre	30	.0013684

Part C : Bill of Quantities**Tender Specification BHEL:PSSR:SCT:2040 for Stores Shed for RMU of Kodayar HEP
at RMU OF KODAYAR HEP SET- 01**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A23	Lowering and placing of Bunk House in the designated area at site location. (Transportation of bunk house to Kodayar storage shed site location shall be done by BHEL)	LS	1	.0024553
A24	Supply and fixing 01 no 3 phase 30A digital energy meter of reputed make in a suitable metal clad box/ wooden board with 01 no 32 A TPN MCB as incoming and internal wiring complete	No	1	.0016369
A25	Supply and fixing of Metal clad Lighting distribution board with of 32 A DB MCB as incoming and 2 nos 20A DB MCBs, 04nos 20A SP MCBs are out going with internal wiring complete in Bunk house	No	1	.0016369
A26	Supply and fixing of Metal clad power point box with 02 nos 15A and 02 nos 5A flush type 3pin switched socket of anchor or oswal make with internal and external wiring of 3cx2.5sq.mm feexible cable from main LDB in Bunk house	No	2	.0006548
A27	Supply and laying of 3.5c x 25 sq.mm Alu. armoured power cable on above the ground of safe route from customer source point to BHEL bunk house	Mtr	40	.0009821
A28	Making end termination of above power cable on both side including supply and using suitable cabel gland and lugs complete	No	2	.0003274
A29	Supply and making of earth pit using 3 mtr long 40 mm GI pipe, earth work excavation,filling of earth pit by using alternate layer of charcoal, excavated earth and salt ,suitable earth connection to bunk house main switch board , earthpit chamber and removable cast iron / Rcc cover slab complete	No	1	.0016369
B1	Supply of Mechanical items, electrical Items and Long rack shelve system for 15m x 30m closed storage shed.	L.S	1	.5082871
B2	Erection of Mechanical items, electrical Items and Long rack shelve system for 15m x 30m closed storage shed	L.S	1	.1741035
B3	Supply and installation of portable toilet block (single toilet type)with overhead tank and associated electrical and plumbing & piping works (inclusive of transit insurance).	L.S	1	.0119428

Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2040 for Stores Shed for RMU of Kodayar HEP
at RMU OF KODAYAR HEP SET- 01**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
TOTAL Weightage				0.9999987