



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

Bharat Heavy Electricals Limited

(A Govt. of India Undertaking)

Power Sector, Western Region,

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Ref. no. BHE/PW/PUR/BSJI-STG/440-Clrfn-01

Date-15/09/2006

To,
All Bidders

Dear Sirs,

SUB: Clarification – 01 to T. S. No. BHE/PW/PUR/BSJI-STG/440

JOB: RECEIPT OF MATERIALS FROM BHEL/CUSTOMER STORES/STORAGE YARD, HANDLING AT STORES/STORAGE YARD, SITE OF WORK, TRANSPORTATION TO SITE OF WORK, ERECTION, TESTING, ASSISTANCE FOR COMMISSIONING AND HANDING OVER OF STEAM TURBINE, TURBO-GENERATOR (INCLUDING ITS RECEIPT FROM TRAILER AND HANDLING), CONDENSER WITH R.E. JOINTS, TG INTEGRAL PIPING, EXTERNAL/REGENERATIVE PIPING, EQUIPMENTS/TANKS/VESSELS, HP & LP HEATERS, DEAERATOR WITH ASSOCIATED PLATFORM, HP-LP BYPASS SYSTEM, POWER CYCLE PUMPS WITH ASSOCIATED AUXILIARIES, CW PUMPS ETC.. INCLUDING BOUGHT OUT ITEMS, PEM PACKAGES LIKE MISC. CRANES & HOISTS, WORK SHOP EQUIPMENTS, LAB EQUIPMENTS, PLATE HEAT EXCHANGERS, MISC. PUMPS, ETC. AND DG SETS OF UNIT-1 & 2 OF 2X 250 MW AT BHILAI ELECTRIC SUPPLY COMPANY PRIVATE LTD, DISTT: DURGA, CHHATTISGARH

Certain bidders have sought clarification on some of the clauses/aspects of the Tender Specification. The same are furnished as under:

QUERY-1: Discrepancy in tentative weight schedule (Appendix-III) at page no. 123 of Tender Specification, Part-I.

Clarification-1:

There are some errors in the weight details in Appendix-III. Correct weight details are being furnished in the enclosed document titled **Appendix-III (Revision-01 dated 15/09/2006)**. These weight details supercede the ones provided under Annexure-III in the original Tender Specification (Part-I).

QUERY - 2: Whether Diesel Generator Set with associated Battery, Battery Charger etc. as listed in Page 113 of T. S. are in scope of this work.

Clarification-2:

We confirm that this package is covered under this Tender specification. The battery, battery charger and associated cabling are parts of the complete DG Set as a system.

QUERY - 3: Total weight of DG Set package

Clarification-3:

The tentative weight of each DG set is about 40 MT as was already indicated in Appendix-III. The same is maintained in the revised details enclosed herewith.

QUERY-4: Number of batteries in DG Set.

Clarification-4: There are two batteries with each DG set.

QUERY - 5: Length, Size of cables and number of joints .

Clarification-5: It is not possible to furnish the exact details at this stage. There are two kinds of cable for each DG set. One set is pre-fabricated cables that connect the Batteries with the DG set. The second set consists of multi-core cables connecting the batteries with battery charger. The second type of cables is to be cut to suit site

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condition, lugs are to be crimped and terminated properly. As such cable jointing is not involved in this activity.

QUERY -6: Whether BHEL will provide any tools like Jointing Kits etc. for DG Set cabling.

Clarification -6:

As already confirmed in previous point, cable jointing is not involved in this work. BHEL will not provide any jointing kit or any other special tools for this work.

QUERY -7: Exhaust Chimney of DG Set – Size and Weight.

Clarification -7:

Details of exhaust stack for DG set have already been furnished in clause no. 4.17.10 (page no 32 of 133) in the Tender Specification Part-I.

QUERY -8: Quantum of piping in Lube Oil System, Fuel Oil System etc. of DG set.

Clarification -8:

From the details of various sub-systems of the DG set furnished in clause no. 4.17.10 at page nos. 32 and 33 of 133 in Technical Bid Specification, you may get a fair idea about the entire work of the DG set. As such minute details of these pipelines will not be very significant compared to the total package of this contract.

QUERY -9: Method of Lube Oil Tank Cleaning (pl refer page 21, clause no. 4.10.6).

Clarification -9:

Lube Oil tank is generally cleaned manually by wire brush/abrasive paper etc. In case of tenacious rusting spots found if any, the same shall be cleaned thoroughly mechanically by buffing wheel etc. Sand Blasting may not become essential if proper cleanliness is achieved by manual/mechanical cleaning.

QUERY -10: Supply of DM water and Steam for cleaning/flushing/blowing (Clause No. 4.13 – Page 27 of 133 of Technical Bid Specification).

Clarification -10:

Required DM water and Steam will be made available free of cost by BHEL. Scope of installation and dismantling the temporary pipelines shall remain unchanged as presently existing in clause 4.13 referred above.

Please submit one copy of this entire document duly counter-signed by your authorized signatory and stamped with your official seal as a token of your unqualified acceptance of this amendment.

In view of the present clarifications, the **Last Date for Tender Submission** is hereby rescheduled as **19/09/2006**. The Technical Bids will be opened at 11:00 am of the next working day.

Thanking you,
Yours faithfully

DGM (Purchase)

Encl: Appendix-III (Revision-01 dated 15/09/2006)

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APPENDIX – III (Revision-01 dated 15/09/2006)

TENTATIVE WEIGHT SCHEDULE PER UNIT

SN	EQUIPMENT / PACKAGE	APPROX. WT. PER UNIT (MT)
A.	STEAM TURBINE & AUX. PER UNIT	592.17
B.	TURBO GENERATOR & AUX. PER UNIT	310.37
C.	CONDENSER WITH AUX,	480.60
D.	HEATERS, DEAERATORS ETC. (HEAT EXCHANGERS) PER UNIT	220.00
E.	BOILER FEED PUMPS & AUX. PER UNIT	103.53
F.	CONDENSATE EXTRACTION PUMPS & AUX. PER UNIT	30.28
G.	COOLING WATER PUMPS & AUX PER UNIT	87.61
H.	FLASH TANK & VESSELS PER UNIT	9.00
J.	DG SET WITH AUX. PER UNIT	40.00
K.	TG INTEGRAL PIPING PER UNIT	59.00
	HP BYPASS VALVES WITH OIL SYSTEM PER UNIT	3.66
L.	BOUGHT OUT ITEMS (BHEL Haridwar Scope)+GEN.AUX. PER UNIT	340.00
	TOTAL WT.	2276.22

(M) EXTERNAL/RE-GENERATIVE PIPING SYSTEM

WITH RELATED PEM BOUGHT OUT ITEMS PER UNIT

- (i) Carbon steel & Alloy Steel Piping PER Unit-222 MT**
- (ii) Stainless Steel Piping PER Unit-13 MT**

(N) EQUIPMENTS/SYSTEMS COMMON FOR TWO UNITS– 190.0 MT

NOTE :

- The weight indicated above is approximate and there may be a variation in weight of equipment / package. No claim, whatsoever, will be entertained by BHEL on account of variation in weight & quantities in respect of TG Equipments, TG Integral piping along with other equipments like Flash Tanks, vessels, Pumps, DG sets etc.
- For External piping/Regenerating piping system with related PEM items as per above under **Sl. (M)**, the accepted item rate shall remain firm for any upward or downward variation in quantities up to plus/minus 30%. Applicable rates for quantities beyond these limits for the External piping/Regenerating piping system will be mutually discussed and decided.
- For any variation in weight of Equipments/systems, pumps, tanks, workshop equipments, lab equipments, misc. Pumps, plate heat exchangers, misc. Cranes and hoist etc. Common / applicable for both the units as mentioned above under **Sl. (N)**, the accepted item rate shall remain firm and payment will be made for actual weight erected & commissioned.