



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

( भारत सरकार का उपक्रम )

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

**TCN - 02**

Ref: PSER:SCT:DPL:T1322:TCN-02

Date: 23-03-2012

Sub	Tender change notice (TCN) 02.	
Job	Erection, testing, commissioning etc of Steam Turbine & auxiliaries, Generator & auxiliaries, Pumps, Piping, Misc Equipments, Misc Piping etc for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.	
Ref	1.0	Tender no PSER:SCT:DPL:T1322:12
	2.0	BHEL's NIT, vide reference no PSER:SCT:DPL:T1322:12 Date: 02-03-2012
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:DPL:T1322:TCN-01 Date: 14-03-2012
	4.0	Other references (if any).

With reference to above, following points, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Amendment/ Modification to tender terms as per enclosed Annexure-A.
- 2.0 Revised BOQ cum price schedule format VOL-III- PRICE SCHEDULE, REV-01 superseding VOL-III PRICE SCHEDULE, REV-00 issued earlier along with NIT.  
**Bidders are requested to submit their offer as per revised BOQ (Rev-01) only.** Offer from bidders in superseded price schedule (Vol-III, REV-00) shall not be considered. Bidders are also requested to submit a declaration in techno-commercial offer that they have submitted their price bid in sealed envelope as per **REVISED price schedule format (VOL-III- PRICE SCHEDULE, REV-01).**
- 3.0 Due date of offer submission is extended from 23-03-2012 to **26-03-2012 (15=00 Hrs)**. Bidders are requested to submit their offer by extended due date positively.
- 4.0 Revised 'No deviation certificate' is attached. Bidder to submit 'No deviation certificate' as per attached format only.
- 5.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

ENGR (SCT)

Encl

As above.

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

POWER SECTOR EASTERN REGION, DJ-9/1, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960

फोन/Phone : बोर्ड/EPABX : 23211798/ 1691

JOB	Erection, testing, commissioning etc of Steam Turbine & auxiliaries, Generator & auxiliaries, Pumps, Piping, Misc Equipments, Misc Piping etc for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.
TENDER NO	PSER:SCT:DPL-T1322:12

SL NO	AMENDMENT/ MODIFICATION		
<b>1.0</b>	<b>VOLUME-IF-CML-R-0</b>		
1.1	Clause no 21.3 stands revised as under.		
	<b>SITE ORGANIZATION</b>		
1.1.1	21.3.1	The contractor shall maintain a site organization of adequate strength in respect of manpower, construction machinery and other implements at all time for smooth execution of the contract headed by a competent Construction Manager (CM) for site operations with sufficient level of authority to take site decisions. The contractor will submit organization chart (showing the name of CM) with individual bio-data indicating various levels of experts to be posted for supervision in the fields of supervision and execution, quality, material management, planning, safety, etc. The organization shall be reinforced from time to time, as required to make up slippage (if any) from schedule without any commercial implication to BHEL. The organization chart is to be submitted within 10 days from the date of LOI.	
1.1.2	21.3.2	Following engineering manpower with power plant construction background to be deployed at site by the successful bidder for their day to day supervision etc for proper smooth execution as per direction of Constructioin Manager, BHEL. The list is tentative and may vary depending on job requirement and direction of BHEL.	
1.1.2.1	21.3.2.1	Planning engineer.	1 no.
1.1.2.2	21.3.2.2	Qualified safety officer.	1 no.
1.1.2.3	21.3.2.3	Qualified quality officer.	1 no.
1.1.2.4	21.3.2.4	Site engineer (including piping engineer) and supervisors (including rotating equipment foreman).	Enigneers – 2 nos. Supervisors – 3 nos.
1.1.2.5	21.3.2.5	NDT specialist with NDT level 2 certification.	1 no.
1.1.3	21.3.3	Engineer/ supervisor for other functions like store & purchase, material management, planning, FIN, administration etc are to be provided as per site requirement and not referred above.	
1.1.4	21.3.4	In the event of failure of the contractor to provide necessary manpower indicated above as per requirement, BHEL reserve the right to deduct Rs 50,000 per man-month for engineer and Rs 30,000 per man-month for the supervisor/ safety/ quality officer/ NDT specialist from RA bills.	
1.1.5	21.3.5	For rendering commissioning assistance with effect from turbine oil flushing till handing over of the set, a dedicated gang of six persons along with an exclusive supervisor need to be deployed by the vendor to attend the incidental works of commissioning as per the instruction of BHEL commissioning engineer. The total gang will report to BHEL and will follow instruction of BHEL's commissioning engineer. This gang with supervisor shall be separate and will be their besides other personnel to provided by the contractor for his day-to-day work. The gang need to be provided during all shifts also whenever required by BHEL commissioning engineer. They shall be equipped with all necessary hand-tools to attend all the incidental works during commissioning.	
1.1.6	21.3.6	In the event of failure of the contractor to provide necessary manpower indicated above as per requirement for a continuous period of 3 days or more, BHEL reserve the right to recover/ deduct Rs 30,000, Rs 15,000, Rs 10,000 per man-month for supervisor, skilled worker, for semi-skilled/ un-	

		skilled worker respectively on pro-rata basis from the date of deputation as indicated as above from RA bills.
1.1.7	21.3.7	BHEL reserve the right to reject or approve the list of personnel proposed by the contractor. The persons whose bio-data have been approved by BHEL will have to be posted at site and deviation in this regard will not be permitted unless specific & reasonable justification is made.
1.1.8	21.3.8	In addition to above, a well experienced qualified engineer to be designated, as ‘Project Co-ordinator’, shall be deployed by the contractor. Such engineer shall have adequate exposure on the job and shall remain fully involved in all planning activities, guidance etc to contractor’s own team during complete execution period of contract.
1.1.9	21.3.9	The contractor should also submit to BHEL for approval a list of T&Ps along with their fitness certificates. The tools & tackles shall not be removed from site without written permission of BHEL.
1.1.10	21.3.10	The contractor should also submit network programs for the erection of various items. These networks shall show owner/ BHEL hold points (CHP), which have to be cleared by owner/ BHEL, or their authorized representatives before further erection can take place. These programs for the erection would clearly identify responsibilities of the contractor and owner/ BHEL. It is the responsibility of the contractor to get the networks approved by BHEL within four weeks of the date of finalization of award of work/ placement of LOI.
<b>2.0</b>	<b>VOLUME-IF-TS-1-R-0</b>	
2.1	Clause no 2.29 stands revised as under.	
	2.29	Central lub oil storage & purification system, all inclusive.
<b>3.0</b>	<b>VOLUME-IF-TS-2-R-0</b>	
3.1	Clause no 2.2.1.3 stands deleted.	
<b>4.0</b>	<b>VOLUME-III-R-00</b>	
4.1	Payment terms of sl no 1.0 have been modified after eliminating painting component.	
4.2	Quantity of sl no 6.0 has been modified.	
4.3	Description of sl no 7.0 has been modified.	
4.4	Description of sl no 8.0 has been modified.	
4.5	Volume-III has been revised. Bidder shall submit offer as per revised Volume-III only.	
<b>5.0</b>	<b>GENERAL</b>	
5.1	Aforesaid volumes of tender have been revised based on aforesaid amendments/ modifications to respective clauses.	
5.2	Bidder shall submit price strictly in compliance with technical specification and tender terms along with amendment/ clarifications issued till date within the due date.	
5.3	All other terms & conditions shall remain unchanged.	

<b>VOLUME-III PRICE SCHEDULE, REV-01</b>	
<b>Erection, testing, commissioning etc of steam turbine &amp; auxiliaries, generator &amp; auxiliaries, pumps, piping, misc equipments, misc piping etc for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.</b>	
<b>TENDER NO - PSER:SCT:DPL:T1322:12</b>	
<b>PREAMBLE</b>	
1.0	This preamble forms part of tender document and schedule of items. The tenderer should read this preamble carefully in rates for various items. Clauses under this preamble shall be read in conjunction with various volumes of tender as per NIT together with subsequent changes/ modifications etc thereto as applicable as on date of submission of price offer.
2.0	The work shall be carried out strictly as per specifications, description of the items in these schedule and / or engineer's instructions.
3.0	Items of work provided in this schedule but not covered in this specification shall be executed strictly as per instruction of the engineer.
4.0	Unless specifically mentioned otherwise in the tender document, the tenderer shall quote for the finished items and shall provide for the complete cost towards power, fuel, tools, tackles, equipment, constructional plants, temporary works, labour, dismantling of all temporary piping, structures, valves, pumps, tanks & other misc. equipment, strengthening of roads/culverts/bridges etc. including arranging all clearances etc. required for carrying out different activities & tests, materials, levies, taxes, transport, layout, repairs, rectification, maintenance till handing over, supervisions, colonies, shops, establishments, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the tender document and this schedule.
5.0	Unless otherwise specified & except for tender on lumpsum basis, for all item rate based tenders, the quantities of the various items mentioned in price schedule are approximate, based on very preliminary information and may vary to any extent or to be deleted altogether. The quoted/ accepted rates shall remain firm and valid as long as variation in total value of work executed under this contract including extra items, but excluding any price escalation, remains within +/- 20% (Twenty percent) of the contract price given in the LOI/ WO.
6.0	The rates quoted shall be inclusive of cleaning of site of any vegetation, dressing and leveling etc including fixing of grid pillars, benchmarks etc required for commencement of site activities. No separate payment will be made towards the same.
7.0	Rates shall be quoted in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellations should be countersigned and in case of illegibility the interpretation of engineer shall be final. All entries shall be in English language.
8.0	All works item wise shall be measured upon completion and paid for at the rates quoted and accepted.
9.0	The tender shall be deemed to have studied the specifications, details of work to be done within the time schedule attached and to have acquainted himself of the conditions prevailing at site.
10.0	Engineer's decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to the other sections/volumes of the contract.
11	Taxes & Duties etc shall be as per tender provision.

<b>VOLUME-III PRICE SCHEDULE, REV-01</b>		
<b>Erection, testing, commissioning etc of steam turbine &amp; auxiliaries, generator &amp; auxiliaries, pumps, piping, misc equipments, misc piping etc for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.</b>		
<b>TENDER NO - PSER:SCT:DPL:T1322:12</b>		
<b>SCH-1 - TOTAL PRICE</b>		
<b>SL NO</b>	<b>ITEM DESCRIPTION</b>	<b>AMOUNT (Rs)</b>
1.0	STG & AUXILIARIES (AS PER SCH-2).	
2.0	MISCELLANEOUS PIPING ETC (AS PER SCH-3).	
3.0	TOTAL	
<b>NOTE</b>		
1.0	Bidder's quoted total price at SL NO 3.0 above shall be taken into account for evaluation and awarding and hence, shall be complete in all respect for the full scope defined in specification and in accordance with all terms & conditions of tender.	
2.0	Bidder shall quote lumpsum price for SCH-1 (STG & auxiliaries).	
3.0	Bidder shall quote price on unit rate basis for SCH-2 (Miscellaneous piping).	
4.0	Price format shall not be changed by bidder in any case, since it may lead to cancellation of offer.	

<b>VOLUME-III PRICE SCHEDULE, REV-01</b>				
<b>Erection, testing, commissioning etc of steam turbine &amp; auxiliaries, generator &amp; auxiliaries, pumps, piping, misc equipments, misc piping etc for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.</b>				
<b>TENDER NO - PSER:SCT:DPL:T1322:12</b>				
<b>SCH-2 - STG PRICE</b>				
<b>SL NO</b>	<b>ITEM DESCRIPTION</b>	<b>QUANTITY</b>		<b>AMOUNT (Rs)</b>
1.0	Lumpsum price for erection, testing, commissioning etc of steam turbine & auxiliaries, generator & auxiliaries, associated pumps, associated piping, associated miscellaneous equipments, etc taking into account all clarifications/ tender change notices etc till date for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.	1	LOT	

**VOLUME-III  
PRICE SCHEDULE, REV-01**

**Erection, testing, commissioning etc of steam turbine & auxiliaries, generator & auxiliaries, pumps, piping, misc equipments, misc piping etc for 1x250 MW, unit # 8 at DPL, Durgapur, West Bengal.**

**TENDER NO - PSER:SCT:DPL:T1322:12**

**SCH-3 - MISCELLANEOUS PIPING PRICE**

SL NO	DESCRIPTION	QUANTITY	RATE (Rs)	AMOUNT (Rs)
1.0	<p>Handling from storage, erection, welding, non-destructive testing, inspection, internal cleaning &amp; painting (as per scope), final painting, testing, commissioning etc of carbon steel CW piping (Approximately 600 NB to 2400 NB) and associated material (Including fittings, valves etc) as per tender.</p> <p>Payment shall be released as per following terms. (i) Erection - 35%; (ii) Alignment - 5%; (iii) Welding - 40%; (iv) NDT - 10%; (v) Hydraulic test/ UT - 5% and (vi) As-built drawing submission - 5%.</p>	500	MT	
2.0	<p>Handling from storage, erection, welding, non-destructive testing, inspection, internal cleaning &amp; painting, final painting, testing, commissioning, etc of other carbon steel LP piping (ACW/ service water/ drinking water, etc) and associated material (Including fittings, valves etc) as per tender.</p> <p>Payment shall be released as per following terms. (i) Erection - 35%; (ii) Alignment - 5%; (iii) Welding - 38%; (iv) NDT - 10%; (v) Hydraulic test/ UT/ leakage test - 5%; (vi) Painting completion - 5%; (vii) As-built drawing submission - 2%.</p>	240	MT	
3.0	<p>Handling from storage, erection, welding, non-destructive testing, inspection, internal cleaning (as per scope), testing, commissioning, etc of stainless steel LP piping (Condensate transfer/ DMCW etc) of upto 350 NB (Approximately) and associated material (Including fitting, valves, etc) as per tender.</p> <p>Payment shall be released as per following terms. (i) Erection - 35%; (ii) Alignment - 5%; (iii) Welding - 40%; (iv) NDT - 10%; (v) Hydraulic test/ leakage test - 8%; (vi) As-built drawing submission - 2%.</p>	8	MT	
4.0	<p>Handling from storage, erection, welding/ jointing, non-destructive testing, inspection, internal cleaning &amp; painting (as per scope), final painting, testing, commissioning, etc of instrument air &amp; service air system (up to 150 NB galvanised &amp; threaded) and associated material (Including fitting, valves, etc) as per tender.</p> <p>Payment shall be released as per following terms. (i) Erection - 35%; (ii) Alignment - 5%; (iii) Jointing - 38%; (iv) NDT - 10%; (v) Pnuematic test - 5%; (vi) Painting completion - 5%; (vii) As-built drawing submission - 2%.</p>	2	MT	
5.0	<p>Handling from storage, fabrication, erection, welding, inspection, fixing/ embedding, painting etc of hangers, supports &amp; structures, misc. supporting material etc all complete as per tender.</p> <p>Payment shall be released as per following terms. (i) Erection - 60%; (ii) Welding - 35%; (iii) Painting completion - 3%; (iv) As-built drawing submission - 2%.</p>	37	MT	

SL NO	DESCRIPTION	QUANTITY		RATE (Rs)	AMOUNT (Rs)
6.0	Handling from storage, erection, welding, inspection, fixing/ embedding, painting etc of RE joints, expansion bellows, annubars & flow elements all complete as per tender. Payment shall be released as per following terms. (i) Erection - 60%; (ii) Welding - 35%; (iii) Painting completion - 3%; (iv) As-built drawing submission - 2%.	7	MT		
7.0	Fabrication of mitre bend, reducer, tees of sizes NB 250 & above for LP piping system (other than CW piping system), etc from straight pipes as per tender. Straight pipes will be supplied by BHEL free of cost. Payment shall be released as per following terms. (i) Fabrication - 95%; (ii) Erection - 5%.	10	MT		
8.0	Supply, application of wrapping/ coating materials of burried pipe as per following - One coat of coal tar primer of approved quality followed by a final coating of epoxy resin & coal tar blend and then two layers, each 2 mm thick of coal tar tape as outer wrap shall be applied to the external surface of the coating. FRG reinforced plastic or coal tar wrap shall be used conforming to IS:15337:2003 or approved relevant codes/ standards. Contractor shall submit detailed protection procedure for approval. The pipes that will be buried underground shall be spark tested after completion of wrapping of each sections/ field jointing to check the quality of insulation that has been provided on the pipe (Quantity indicated is surface area of buried pipe in sqm). Payment shall be released as per following terms. (i) Receipt of material at site - 50%; (ii) Application & completion - 50%.	4,000	SQM		
<b>TOTAL</b>					

## NO DEVIATION CERTIFICATE

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Write Name & Address of Officer of BHEL inviting the Tender)

Dear Sir,

Sub : **No Deviation Certificate**

Ref : 1) Tender no PSER:SCT:DPL:T1322:12

2) BHEL's NIT, vide reference no PSER:SCT:DPL:T1322:12 Date: 02-03-2012

3) BHEL's TCN-01, vide reference no PSER:SCT: DPL:T1322:TCN-01 Date: 14-03-2012

4) BHEL's TCN-02, vide reference no PSER:SCT: DPL:T1322:TCN-02 Date: 23-03-2012

5) All other pertinent issues till date.

We hereby confirm that we have not changed/ modified/materially altered any of the tender documents as downloaded from the website/ issued by BHEL and in case of such observance at any stage, it shall be treated as null and void.

We also hereby confirm that we have neither set any Terms and Conditions and nor have we taken any deviation from the Tender conditions together with other references applicable for the above referred NIT/Tender Specification.

We further confirm our unqualified acceptance to all Terms and Conditions, unqualified compliance to Tender Conditions, Integrity Pact (if applicable) and acceptance to Reverse Auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized representative of the bidder)

पावर सेक्टर पूर्वी क्षेत्र ( मुख्यालय )

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