



Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Power Sector – Eastern Region

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TENDER CHANGE NOTE 04 (TCN – 04) DT: 01-11-2007

WITH REFERENCE TO THE NIT, PUBLISHED IN THE WEB SITES FOR THE WORK OF MATERIAL HANDLING, ERECTION, TESTING, COMMISSIONING, TRIAL RUN AND FIELD EFFICIENCY TEST OF 4X150MW VERTICAL FRANCIS TURBINE-GENERATOR ALONG WITH ITS AUXILIARIES, EXCITATION SYSTEM, CONTROL, PROTECTION, MONITORING SYSTEMS INCLUDING ELECTRICALS AND C&I SYSTEMS OF KAMENG HYDRO ELECTRIC PROJECT, NEEPCO, KIMI, WEST KAMENG DISTRICT, ARUNACHAL PRADESH AGAINST **TENDER DOCUMENT NO PSER:SCT:KMG-T 792:07**, FOLLOWING CHANGES MAY PLEASE BE NOTED AND COMPLIED.

01. Clarification on pre-bid discussion. (FILE 1)
02. Revised Annexure: A2 of Vol-II (FILE 2). This supercedes corresponding Annexure of VOL-II issued earlier.
03. Revised **Rate / Price Schedule with preamble (Absolute Value)-Rev.01** (FILE 3A)
04. Revised **Rate / Price Schedule with preamble (Percentage Value)-Rev.01** (FILE 3B)
05. Revised Payment terms Annexure-1 of TCN (File -4). This supercedes Clause 4.4 (Terms of Payment) of section – IV of VOL-II issued earlier.
06. Revised “Facilities For Maintenance Of “Health, Safety And Environment.” Clause as per Annexure-2 of TCN (File – 5). This supercedes Clause 2.37.13 of section – II of VOL-II issued earlier.

- BIDDERS ARE REQUESTED TO NOTE THAT THE REVISED BOQ CUM RATE SCHEDULE (REV-01) SUPERSEDES ORIGINAL BOQ. BIDDERS SHALL SUBMIT THEIR OFFER ONLY AS PER REVISED BOQ (REV-01). OFFER FROM BIDDER IN SUPERSEDED BOQ WILL NOT BE CONSIDERED.
- BIDDERS ARE REQUIRED TO SUBMIT A DECLARATION IN TECHNO-COMMERCIAL OFFER THAT THEY HAVE SUBMITTED THEIR PRICE BID IN SEALED ENVELOP AS PER REVISED BOQ (REV.-01) ONLY.

BIDDERS ARE REQUESTED TO SUBMIT OFFER BY THE EXTENDED DUE DATE OF SUBMISSION OF OFFER i.e. 05-11-07(15=00 Hrs).

ALL OTHER TERMS & CONDITIONS OF THE TENDER SHALL REMAIN UNCHANGED.

SR MANAGER (SCT)

4 x 150 MW Kameng Hydro-electric Project

Pre-bid meeting held at BHEL, Kolkata office on 9th October 2007

Sl. No.	Bidders' query	BHEL's reply
	VOLUME - II, SECTION - I	
01.	Clause M: Cable Gland and Ferrules of all sizes are to be provided by BHEL	Supply of erection consumables only is in the scope of the contractor. All other materials shall be in the scope of BHEL. Fabrication of cable trays not envisaged.
02.	Clause:N It is not possible to access & estimate and include these costs in the offer to be submitted by subcontractor. Hence Man Hours spent on all such works after synchronization limited to 100 Man Hours per each machine. Beyond these Man Hours Spent, that should be paid extra by BHEL.	No change in tender clause.
03.	Clause No:2.23.3 Page-13 The Power for all tests Shall be provided to the contractor at no cost.	Power required for pre-commissioning and commissioning tests and core flux test shall not be chargeable to the contractor.
04.	Clause No:2.25.2 Page No-14 The method of Spiral Casing Erection with out EOT Crane cannot be finalized at the time of tendering and estimation of its cost also not possible now. This has to be deleted from the present scope.	2.25.1 : Mobile crane along with operator and fuel shall be provided to the contractor free of cost for erection until the EOT crane is ready. Other major material handling equipment, if any, required for the purpose shall also be provided to the contractor free of cost.
05.	Clause No:2.37.25 page-36 The Warranty / Guarantee should be 12 months from the date of conducting Full Load Tests, but not 18 months after P.G.Test.	2.37.25, Page - 38 : No change in tender clause. It may be noted that Warrantee Period of each unit shall commence from the date of handing over (unit wise) and shall continue till date specified.
	VOLUME - II SECTION -IV	
06.	Clause No: 4.3.1 Page-53 Retention Money shall be released after 12 months from the date of completion of Full Load Tests of Respective Unit without waiting till completion of Field Efficiency Tests.	4.4.1, Page - 55 : No change in tender clause.

Sl. No.	Bidders' query	BHEL's reply
07.	Clause No 4.3.1 Page-53 The Warrantee Period should be 12 months.	4.4.1, Page - 55 : No change in tender clause. Also please refer to our reply to sl. no. 05
08.	Clause No 4.5 Page-54 Ceiling limit on Price Variation should be 15% within the Original Contract period. The Prices are to be revised beyond the Original Contract period.	No change in tender clause
09.	Clause No 4.8 Page-55 Over Run Compensation is a must to consider beyond three months Grace period after expiry of 40 months Contract Period to cover FIXED SITE Expenses. In Hydro Projects it is not at all possible to accept the work without monthly Over run charges and the reasons for delays are not in the hands of erection contractor.	<p>In case due to reasons not attributable to the contractor, the work gets delayed and scheduled completion gets extended, the contractor shall not be entitled for any over run compensation for a period of three months after the contractual completion date. In case the scheduled completion time gets extended beyond three months as stated above, the contractor shall be considered for payment of fixed over run charges @Rs. 1,00,000.00 PM (Rupees one lakh per month only) on receipt of advance notice intending to claim over run and on fulfillment of following condition:</p> <p>a) The reasons for delay in completion of work are not attributable to the contractor.</p> <p>b) The targets fixed during the over run period are achieved by contractor.</p> <p>Once the claim of over run charges is admitted no other compensation, whatsoever will be entertained.</p> <p>The contractor shall maintain sufficient work force and other resources required for completion of the job expeditiously for the entire contractual period including extended period.</p>

Sl. No.	Bidders' query	BHEL's reply
10.	Clause No:2.37.17 page-33 The Security for Equipment Stores to be provided by BHEL at their cost and Security at Power House shall be by the Contractor Cost.	Security at open and covered storage yard shall be in the scope of BHEL. However, contractor shall provide security for the materials issued to them and under their custody.
VOLUME - II ANNEXURE - 2		
11.	<p>Billing Schedule for Erection, Commissioning and Testing and Handing Over. The Percentage Break up provided for S.No:A should be 15 instead of 10 indicated.</p> <p>The Total of Percentages indicated under S.No:B, C, D should be enhanced by another 5%.</p> <p>The Percentage given Under S.No.BB should be limited to 5% only since Retention Money is being held.</p> <p>We also find more percentages given for some of the Electrical BOP items.</p> <p>For Conducting Field Efficiency Tests as a Contractor our services are limited to ONLY to provide Manpower whose value is very mere and hence this needs your attention.</p>	ANNEXURE A2 : Revised Billing schedule is enclosed.
12.	<p>Clause No 4.7 page-58 Man Day Rates for Eligible Extra Works:</p> <p>The Man Day Rates should be considered as below:</p> <p>Clause No:4.7 (a) Rs. 60-00 instead of Rs. 40-00</p> <p>Clause No:4.7 (b) Rs. 40-00 instead of Rs. 25-00</p> <p>Clause No:4.7 (c) Rs. 50-00 instead of Rs. 30-00</p> <p>Clause No:4.7 (a) Rs. 35-00 instead of Rs. 25-00</p>	No change in tender clause.
OTHERS		
13.	<p><u>Mobilisation Advance:</u></p> <p>10% Interest Free Mobilisation Advance after award of Contract to be paid by BHEL.</p>	No change in tender clause.

Sl. No.	Bidders' query	BHEL's reply
14.	<u>Accommodation:</u> Initially, for our Staff (5 members) and workmen (10 Members) for 4 Months, BHEL has to provide the Accommodation in their Quarters till our camp construction is completed.	As per tender
15.	<u>Water:</u> BHEL has to provide a Water Point from their Camp for the supply of Water to the Contractor's camp.	It shall not be possible.
16.	Space Provision to be kept for making Two Stators Assembly in Service Bay at a Time.	Bidders are advised to visit site and obtain first hand information themselves.
17.	EOT Crane Services utilized by other Agency shall be separately noted by providing Extra Energy Meter.	Agreed. However, it will be the responsibility of the contractor to provide extra energy meter at his cost.
18.	BHEL has to provide Illumination / Flood Lights at Power House. Our Lighting shall be limiting to the Erection & Assembling Areas only.	It shall be responsibility of the contractor to provide temporary lighting to all areas in the power house which otherwise may create safety problem because of his work. Temporary lighting of erection and assembly areas shall also be responsibility of the contractor. Clause no. 2.27, Page 16 may please be referred in this regard. In addition, contractor shall be responsible for area lighting of storage yard area. This includes all items required for the purpose i.e. lamps, cables, conduits, supports, insulators, switches etc. and their maintenance.
19.	The Crane Operator for 75MT Mobile Crane has to be provided by BHEL at free of cost. The Operator for Hydra Crane shall be by the contractor.	Crane operator and fuel for the 75 MT Mobile Crane shall be in the scope of BHEL.
VOLUME - II, SECTION - I		
20.	Clause 1.1.1 As we are not a civil contractor, required concrete Sleepers can not be arranged. The same should be arranged by BHEL as required.	No change in tender clause.

Sl. No.	Bidders' query	BHEL's reply
21.	Clause No: M page-5 All required material like Cable Racks , Supports lugs, glands, ferules, cable tie, cable tag, cable jointing kit etc are to be provided by BHEL. free of cost to contractor.	Please refer our comments at sl. no. 01.
22.	Clause No:1.2.8 All type of special tools, tackles, instruments required for commissioning should provided by BHEL free of cost.	No change in tender clause. Items to be provided by BHEL is listed in Annexure – B.
23.	Clause No:2.23.1 Page-13 Adequate capacity of electric power supply of 3 phase, 415 V at one fixed point in service bay should be provided free of cost to the Contractor.	Construction power shall be supplied at 11 KV level at single point located outside the power house within a radius of 2 KMs from the Service Bay. BHEL shall provide a 500 KVA, 11KV/ 415 V transformer as free issue item. It shall be responsibility of the contractor to install the transformer and further distribute the power at 415 V level at various locations inside the power house for construction purpose. It shall also be the responsibility of the contractor to provide one 11 KV power source at Service Bay for carrying out Generator Stator Core Flux test. Maintenance of all electrical system including transformer shall be in contractor's scope.
		Power drawn from the 11 KV source at Service Bay shall not be charged to the contractor. Power consumed for all pre-commissioning and commissioning tests shall not be charged to the contractor. Power consumed for EOT Crane Services utilized by other Agency shall be separately noted by providing Extra Energy Meter and shall not be charged to the contractor. However, it will be responsibility of the contractor to provide extra energy meter at his cost. No change in other provisions of this clause.

Sl. No.	Bidders' query	BHEL's reply
24.	<p>Clause No 2.36.6.3 page - 24</p> <p>Generally all required SS & MS shims are provided by BHEL free of cost along with equipments as these are the forming part of the main equipment to be installed. The same should be provided by BHEL free of cost to us.</p>	No change in tender clause.
25.	<p>Clause No 2.37.17.1 page-31</p> <p>We request you to arrange security personnel from BHEL at no cost to contractor as the equipments to be installed are under control of BHEL.</p>	Please refer our reply at sl. no. 10.
26.	<p>Clause No:2.37.21 page-33</p> <p>We request to specify the total running meter of the radiography and ultrasonic testing required to be conducted so as to evaluate the cost during estimating the tender offer.</p>	Bidder is advised to estimate the cost based on the tentative dimension of the equipment given in the tender.
27.	<p>Clause No:2.37.25 page-36</p> <p>We accept the Guarantee period of 12 months from the date of first synchronization of the unit only.</p>	Please refer our reply at sl. no. 05.
28.	<p>Clause No:3.4.2 page-45</p> <p>Modification work, rectification, alteration, additional work, repeat work repair work etc. will be charged extra at the man day rate quoted with our offer and agreed finally.</p>	No change in tender clause.
29.	<p>Clause No 4.3.1 Page-53</p> <p>Retention Money should be released immediately after commissioning of the unit against submission of Bank Guarantee for the equal amount for a period of 12 months warranty period from the date of synchronizing of each Unit. Separate Bank Guarantee for each unit will be submitted.</p>	Clause no. 4.4.3, Page 55 : No change in tender clause.

Sl. No.	Bidders' query	BHEL's reply
30.	<p>Clause No 4.2.1 Page-53 We accept warranty period of 12 months on our workmanship of the equipments installed from the date of synchronizing of each unit only. In case of any defects / fault is found during the guarantee period due to the reasons not attributable to us the same will be done at an extra cost basis.</p>	Please refer our reply at sl. no. 05.
31.	<p>Clause No 4.5 Page-54 As the Contract Period is more than three years Price escalation amount ceiling can not be accepted.</p>	Please refer our reply at sl. no. 08.
32.	<p>Clause No 4.7 Page-55 The extra work man hour rate should be increased as Rs. 175/- per hour with consumable and Rs. 125/- per hour with out consumable.</p>	No change in tender clause.
33.	<p>Clause No 4.8 Page-55 In case of the project is delayed beyond the stipulated completion period due to the reasons not attributable to us an over run charges of Rs. 3, 50,000/- per month or the part there of should be paid from the date scheduled completion period and up to the date of reliving us from the site.</p>	Please refer our reply at sl. no. 09.
34.	<p>Clause No 4.9 Page-55 We accept Liquidated Damages at 0.25 % of the delayed portion of the delayed unit per month subject to maximum 5% of the unit Price.</p>	No change in tender clause.
VOLUME-II ANNEXURE-2		
35.	<p>It is seen that in the billing break up you have considered 15 % for commissioning activity which is very high. We accept 5% only for this activity The balance 10% to be adjusted in the Turbine and Generator activities.</p>	Revised Billing schedule is enclosed.

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Sl. No.	Bidders' query	BHEL's reply
36.	We shall provide manual assistance for testing and commissioning of the unit. Necessary testing engineers, testing equipments , instruments , tools etc are to be provided by BHEL	Entire work shall be carried out under supervision of BHEL's engineers. Items to be provided by BHEL as free issue are listed in Annexure B. All other resources shall be provided by the contractor at his cost. No change in tender document.
37.	15% of the contract value should be paid as mobilization advance against Bank Guarantee of equal amount along with work order which can be adjusted from our monthly running bill . 5% of the contract value should be included in the billing break up for construction of our staff and workers accommodation at site.	No change in tender document. Revised billing breakup is enclosed.
VOLUME - II, SECTION - I		
38.	1.1.2 The conveyance,Loading and Boarding expenses to be reimbursed by BHEL	To be included in contractor's price. No change in tender clause.
39.	M-Page-5 The supply of cable trays should be in BHEL scope	Please refer our comments at sl. no. 01.
40.	1.2.8 Tools needed for Testing and Commissioning shall be provided by BHEL	Items to be provided by BHEL as free issue are listed in Annexure B. All other tools/ instruments shall be provided by the contractor at his cost.
41.	2.6.Page-7 Strengthening of roads and culverts for proper movement of cranes and consignment shall be in BHEL scope.	These works of minor nature shall be included in the scope of the contractor.
42.	2.7 Page-7 BHEL should insist for concrete sleeper	No change in tender clause.
43.	2.13 page-9 BHEL shall supply stationary and Printer Catridges,CD Writer's free of cos	No change in tender clause.
44.	2.23.1&2.23.3 page -13 The power supply for E.O.T Crane operation and commissioning activities shall be in M/s Bharat Heavy Electricals Ltd.'s Scope.	Please refer to our reply at sl. no. 23.

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Sl. No.	Bidders' query	BHEL's reply
45.	2.37.25 page-36 The warranty/guarantee shall be 12 months from the date of synchronisation of the concerned unit.	Please refer to our reply at sl. no. 05.
46.	3.4.4 page -45 Re aligning of rotating parts shall be treated as an extra item. More over supply of temporary gaskets and any spare Shall be by BHEL only free of cost.	No change in tender clause.
47.	3.5.12 page-47 3.5.15 page-48 Any re-work that has became necessary and not due to bad workmanship by us shall be treated as an extra work.	No change in tender clause
VOLUME-II, SECTION-IV		
48.	4.3.1 page-53 5% retention money shall be released after commissioning activities and the balance 5% of retention money shall be released after handing over that is after 12 months warranty period for each unit. The warranty period must be 12 months only.	4.4.3, page 55 : No change in tender clause.
49.	4.4 page 56 BHEL shall recover the advance without any interest i.e. the advance shall be interest free.	No change in tender clause.
50.	4.5 page-54 Price variation clause shall be included in the tender without any ceiling	Please refer to our reply at sl. no. 08.
51.	4.8 page-55 Over Run Compensation :-if the contract Over Run's the Agreement shall be revised completely for enhancement of the rates and along with O.R.C at mutually agreed rates.	Please refer to our reply at sl. no. 09.
52.	4.9 page -55 The maximum ceiling limit of Liquidated Damages shall be 5 % of contract value.	No change in tender clause.
53.	4.10 page 59. If the project work front is not made available for more than seven days then BHEL has to consider the idle charges for the men, material and establishment	No change in tender clause.

Sl. No.	Bidders' query	BHEL's reply
VOLUME -II ANEXURE -2		
54.	Percentage indicated towards commissioning activities is 15%.it shall be 2% and the remaining 13 % to be considered equally over the billing schedule.	Revised billing breakup is enclosed.
55.	Water supply to the work men camp shall be provided by M/s Bharat Heavy Electricals Ltd. free of cost	No change in tender clause.
GCC		
56.	2.13, Page no. 19, May be rectified.	Please refer to SCC of the tender. In case of any conflict between GCC and SCC, the SCC shall prevail.
57.	4.2.4, Page no. 26, Inspection fees for electrical inspector will be paid by BHEL.	It will be responsibility of the contractor to co-ordinate with the Electrical inspector and obtain clearance from him in time. All possible assistance shall be provided by BHEL. Statutory inspection fees shall be reimbursed by BHEL to the contractor against production of documentary evidence. Any work required to be carried out by the contractor as per instruction of the Electrical Inspector shall be carried out by the contractor at his cost.
58.	26.4, Page no. 63, Deductible franchise cost will be recovered only, if it is due to contractor negligence.	Please refer our reply at sl. no. 56.
VOLUME - II, SECTION - I		
59.	1.2.1(F), Page no. 4, Please confirm that efficiency test has to be carried out on all 4 units.	PG test shall be carried out on One Unit only.
60.	1.2.2(M), Page no. 5 What type of fabrication of cable rack is to be done. Is it not G.I.? Cable trays, laying/terminating cables from this scope of work to other's scope, BOP etc is included or not, Please specify. Please clarify supply of cable glands, ferruels etc. It should be provided free of charge by BHEL.	Please refer our reply at sl. no. 01.

Sl. No.	Bidders' query	BHEL's reply
61.	2.6, Page no. 8 (i) For 75 T Crane operator should be provided by BHEL. (ii) Strengthening of roads/culverts if it is very minor other wise by BHEL.	Please refer our reply at sl. no. 19. Agreed.
62.	2.13, Page no. 10, There is discrepancy between figure and word Rs 4,000/-.	The figure may please be read as Rs. 8000/-
63.	2.14, Page no. 10, Annexure C-6 does not include crane, where as the word crane is appearing in 3 rd paragraph.	The clause may be read as below: In case of failure by the contractor to deploy any of the items listed in Annexure C (C1 to C11) or any other item required for the work as per programme/ within a reasonable time before actual requirement at site, the same shall be deployed by BHEL and all costs + 30% overhead shall be recovered from the bills of the contractor.
64.	2.23.3, Page no. 14, Power for testing like "core loss test" etc. to be provided by BHEL.	Please refer our reply at sl. no. 23.
65.	2.24, Page no. 14, Drinking water at one point in contractor base camp should be provided by BHEL.	No change in tender clause.
66.	2.25.1, Page no. 14, Erection of embedded part of turbine-spiral casing etc. of unit -1 is to be carried out with the help of mobile crane. The crane provided by BHEL may kindly be permitted for this work free of charge.	Please refer our reply at sl. no. 04.
67.	2.25.2, Page no. 15, Replacement of worn out parts: Spare parts has to arranged by you, only the manpower part will be in contractor scope.	Agreed.
68.	2.27, Page no. 16, General illumination will be taken care by others, the specific light for the work in scope will be provided by contractor.	Please refer our reply at sl. no. 18.

Sl. No.	Bidders' query	BHEL's reply
69.	2.36.6.3, Page no. 25, Shims which forms the integral/permanent parts of equipments will be supplied by BHEL. Temporary use shims is in contractor scope.	No change in tender clause
70.	2.37.17.1, Page no. 33, Security for store may kindly be provided by BHEL.	Please refer our reply at sl. no. 11.
71.	2.37.25, Page no. 38, PG test should be carried out immediately after load test on unit and warranty period of 18 months should be reduced to 12 months.	No change in tender clause.
	T.S.O.W., Section-III VOLUME II, 3.1	
72.	Page no. 40, Kindly specify the condition of the transit store.	Bidders are advised to visit site and obtain first hand information.
73.	3.3.1.3, Page no. 41, Grouting and material for same is not the part of this scope.	Agreed.
74.	3.3.2.11, Page no. 43, Please explain the clause.	Bidder should foresee such requirement and quote accordingly. No change in tender clause.
75.	3.3.2.20/21, Page no. 44, Please explain the "Servicing". May be some thing has to done by manufacturer.	Bidder should foresee such requirement and quote accordingly. No change in tender clause.
76.	3.4.2, Page no. 47, This should only pertain to workmanship.	Not accepted, no change in tender clause.
77.	3.4.3, Page no. 47, Client's taking over time may kindly be specified.	Please refer clause 4.2 of Volume II, Section - IV, Special Conditions of Contract.
78.	3.5.1., Sect-V,5.1, (X)& (XVIII), Page no. 48, Dummy distributor for spiral testing and bulkhead for MIV hydrostatic test be provided.	Agreed.
79.	4.4.1, Page no. 55, Retention amount should be 5%	No change in tender clause
	S.C.C,VOL-II, SECT-IV	
80.	4.4.2, Page no. 55, Warranty, period should be of 12 months for respective unit separately.	No change in tender clause

Sl. No.	Bidders' query	BHEL's reply
81.	4.4, Page no. 56, 10% intrest free advance be paid by BHEL against equivalent B.G. after L.O.I. is issued.	No change in tender clause
82.	4.5, Page no. 56, PVC ceiling should be 15%.	Please refer our reply at sl. no. 08
83.	4.6.1, Page no. 57, Please specify "each occasion".	Bidder should foresee such requirement and quote accordingly. No change in tender clause.
84.	4.7, Page no. 58, Manhour rates should include only normal consumable and light hand tools. Single manhour rate should be revised as BB. 4.7 (a) - Rs. 60/- (ii) 4.7 (b) - Rs. 45/- BB. 4.7 I - Rs. 50/- (iv) 4.7 (d) - Rs. 40/-	No change in tender clause
85.	4.8, Page no. 59, Overrun charges should be paid, when works spills beyond 45 months (i.e. 42 months+3 months free overrun)	Please refer our reply at sl. no. 09
86.	4.14, Page no. 60, Taxes and duties which are imposed/increased after tendering date should be reimbursed on production of documentary proof.	The clause is modified only to the following extent: Any new tax & duties, if imposed subsequently by statutory authority during contract period (after latest date of offer submission), shall be reimbursed by BHEL on production of relevant supporting document to the satisfaction of BHEL. However, the vendor shall obtain prior approval from BHEL before depositing new taxes and duties. No reimbursement shall be made on account of increase in rates of existing taxes, duties etc (as on date of offer submission).

Sl. No.	Bidders' query	BHEL's reply
87.	Vol-II, Annex- A-2, It is requested that the %age break-up for billing schedule should be rescheduled as under:- A. 15.0 10.0 B. 05.0 04.0 D. 06.5 05.0 C. 03.5 03.0 O. 05.0 04.0 V. 03.5 02.5 BB. 05.0 15.0	Revised billing breakup is enclosed.
88.	Volume-II, Annex-C1 (10, 26) Outside micrometer up to 0-200 mm should be in contractor scope, beyond that it should be provided by BHEL.	Not accepted, no change in tender clause.
89.	Annex-C3, (93), Please specify the requirement, it is very special item, to be arranged by BHEL.	Bidder should foresee such requirement and quote accordingly. No change in tender clause.
90.	Annex-C6, (7), Hydraulic (Automatic) bolt torque wrench is special item to be arranged by BHEL.	Not accepted, no change in tender clause.
91.	Annex-C11, (15), Primary injection kit to be provided by BHEL.	Agreed.
92.	Annex-D11, Length of IPB is per phase mtr. Please clarify.	It is well clarified in the tender. No change in tender clause
93.	Vol-III A, Price Schedule (absolute value), 1.8(A),(B), Page no. 2, Please specify the reshifting restacking because they are appearing in the rate/price schedule also.	It is well clarified in the tender. No change in tender clause
94.	Vol-III A, Price Schedule (absolute value), Page no. 4, 5, Transportation of material to work site is appearing in (1.1) & (2.1), please clarify.	It is well clarified in the tender. No change in tender clause

ANNEXURE: A2

BILLING SCHEDULE FOR ERECTION , COMMISSIONING AND TESTING AND HANDING OVER

SL.NO.	ACTIVITIES	ERECTION, COMMISSIONING AND TESTING				
		% OF CONTRACT PRICE	UNIT-1	UNIT-2	UNIT-3	UNIT-4
A1	On mobilisation of initial manpower, initial T & Ps and creation of infrastructural facilities like accommodation for staff and labour with drinking water and sanitation facilities and on completion of area lighting for storage yard area.	4.00				
A	TURBINE AND AUXILIARIES					
	Erection of pier nose	0.50	0.125	0.125	0.125	0.125
	Erection of draft tube Elbow	0.50	0.125	0.125	0.125	0.125
	Erection of draft tube cone	0.50	0.125	0.125	0.125	0.125
	Erection of First stage embedment equipments/pipes	0.40	0.1	0.1	0.1	0.1
	Erection of second stage embedments	0.60	0.15	0.15	0.15	0.15
	Assembly of spiral casing					
	a) Jointing and lowering of stay ring, levelling, centering etc.	1.00	0.25	0.25	0.25	0.25
	b) welding of spiral casing segments	2.00	0.50	0.50	0.50	0.50
	c) Post/preweld heat treatments/stress relieving etc.	0.50	0.125	0.125	0.125	0.125
	d) NDT completion	2.00	0.5	0.5	0.5	0.5
	e) Hydro Test of spiral casing	1.50	0.375	0.375	0.375	0.375
	f) Alignment, levelling and centering of spiral casing and handing over for concreting.	2.50	0.625	0.625	0.625	0.625
	TOTAL	12.00				
B	TRIAL ASSEMBLY OF GUIDE APPARATUS					
	a) Placing of Pivot Ring, levelling etc.	1.00	0.25	0.25	0.25	0.25
	b) Lowering of guide vans	1.00	0.25	0.25	0.25	0.25
	c) Lowering of top cover	1.00	0.25	0.25	0.25	0.25
	d) Setting of guide vane clearance	1.00	0.25	0.25	0.25	0.25
	e) Dismantling of above after dowelling	1.00	0.25	0.25	0.25	0.25
	TOTAL	5.00				
C	RUNNER AND SHAFT ASSEMBLY					
	a) Assembly of runner and shaft	0.5	0.125	0.125	0.125	0.125
	b) Lowering of runner-shaft assembly	0.5	0.125	0.125	0.125	0.125
	TOTAL	1.00				
D	FINAL ASSEMBLY OF GUIDE APPARATUS					
	a) Erection of Pivot Ring	1.00	0.25	0.25	0.25	0.25
	b) Erection of Lower bush housing	0.50	0.125	0.125	0.125	0.125
	c) Erection of Guide Vanes	0.50	0.125	0.125	0.125	0.125

	c)Erection of Top Cover and top bush housing	0.50	0.125	0.125	0.125	0.125
	d) Erection of regulating ring	0.50	0.125	0.125	0.125	0.125
	e) Erection of linkage	0.50	0.125	0.125	0.125	0.125
	f) Guide Vane bedding and setting of GV clearances.	1.00	0.25	0.25	0.25	0.25
	g) Dry operation of GV.	2.00	0.5	0.5	0.5	0.5
	Total	6.50				
E	Turbine Pit Liner					
	Welding, NDT and erection of turbine pit liners	1.00	0.25	0.25	0.25	0.25
	TOTAL	1.00				
F	MAIN INLET VALVE					
	a) Assembly and Hyd. Test of MIV	1.00	0.25	0.25	0.25	0.25
	b: Foundation preparation and installation of MIV	1.00	0.25	0.25	0.25	0.25
	c) Erection of By-pass valve and servo after stroke& leak testing	0.50	0.125	0.125	0.125	0.125
	d)Erection of pipe lines, pressure testing	0.50	0.125	0.125	0.125	0.125
	e) Erection of Inlet pipe, welding and NDT	1.00	0.25	0.25	0.25	0.25
	f) Dry operation of MIV and By-pass valve	1.00	0.25	0.25	0.25	0.25
	TOTAL	5.00				
G	GOVERNOR					
	a) Erection of Mechanical cabinet	0.50	0.125	0.125	0.125	0.125
	b) Erection of Electrical panel	0.50	0.125	0.125	0.125	0.125
	c) Erection of Governor Oil pipe lines and Hyd. Test.	1.00	0.25	0.25	0.25	0.25
	d) Commissioning of OPU	1.00	0.25	0.25	0.25	0.25
	TOTAL	3.00				
H	GENERATOR					
	1) Stator					
	a) Assembly of stator frame segments	1.00	0.25	0.25	0.25	0.25
	b) Stator core assembly	3.00	0.75	0.75	0.75	0.75
	c) Laying of Top and Bottom Bars	3.00	0.75	0.75	0.75	0.75
	d) Brazing of stator Bars	1.00	0.25	0.25	0.25	0.25
	e) Dry out and HV Test	1.00	0.25	0.25	0.25	0.25
	f) Foundation preparation and lowering of Stator ; placement of stator.	1.00	0.25	0.25	0.25	0.25
	g) Testing and erection of stator air coolers and allied piping in complete with hydro testing.	1.00	0.25	0.25	0.25	0.25
	2) Rotor					
	a) Rotor spider shaft assembly in service Bay	1.00	0.25	0.25	0.25	0.25
	b)Rotor core assembly	1.00	0.25	0.25	0.25	0.25
	c)Inspection, drying (if required)and Rotor poles assembly	1.50	0.375	0.375	0.375	0.375
	d) Completion of pole connection, Dry out and HV test	1.00	0.25	0.25	0.25	0.25
	e) Lowering of rotor,	1.00	0.25	0.25	0.25	0.25
	TOTAL	16.50				

I	BOTTOM BRACKET					
	a) Assembly, welding & testing of bottom bracket	1.00	0.25	0.25	0.25	0.25
	b) Lowering, centering and levelling of bottom bracket	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.00				
J	UPPER BRACKET					
	a) Assembly of upper bracket	0.50	0.125	0.125	0.125	0.125
	b) Lowering of bracket	0.50	0.125	0.125	0.125	0.125
	TOTAL	1.00				
K	BRAKE JACK ASSEMBLY					
	a) Erection of Brake and Jack system, pipings, Hyd. Testing.	0.40	0.10	0.10	0.10	0.10
	b) Commissioning of B&J system	0.60	0.15	0.15	0.15	0.15
	TOTAL	1.00				
L	HP LUBE OIL SYSTEM					
	a) Erection of pumps-motors, pipings and Testing	1.00	0.25	0.25	0.25	0.25
	b) Commissioning of HP Lube Oil system	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.00				
M	TURBINE & GENERATOR BEARINGS AND BOXING UP					
	a) Assembly erection & testing of Thrust Bearing and corresponding coolers.	0.50	0.125	0.125	0.125	0.125
	b) Assembly, erection & testing of Upper bearing and corresponding coolers	0.50	0.125	0.125	0.125	0.125
	c) Assembly, erection & testing of Turbine guide bearings and corresponding coolers.	0.50	0.125	0.125	0.125	0.125
	d) Setting of Bearing Clearances and boxing up after alignment.	0.50	0.125	0.125	0.125	0.125
	e) Boxing up	1.00	0.25	0.25	0.25	0.25
	TOTAL	3.00				
N	ALIGNMENT					
	a) Alignment of Generator shaft	0.50	0.125	0.125	0.125	0.125
	b) Coupling of Turbine-gen. Shaft	0.50	0.125	0.125	0.125	0.125
	c) Combined alignment	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.00				
O	13.8KV IP BUSDUCT					
	a) Erection & welding of bus ducts, bus supports/insulators and bus bars.	1.00	0.25	0.25	0.25	0.25
	b) Installation of piping of pressurised system with blower.	0.50	0.20	0.10	0.10	0.10
	c) 13.8/400A tapping for excitation, UAT and LAVT panel.	1.00	0.25	0.25	0.25	0.25
	d) Leak test of Ducts	0.50	0.125	0.125	0.125	0.125
	e) HV Test of Ducts.	1.00	0.25	0.25	0.25	0.25
	TOTAL	4.00				
P	EXCITATION SYSTEM					
	a) Erection of all panels, levelling etc. and cabling & termination	1.00	0.25	0.25	0.25	0.25

	b) Erection of slip ring and collector system	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.00				
Q	GENERATOR TERMINAL EQUIPMENTS					
	a) Erection of LAVT panel, cabling and termination	0.20	0.05	0.05	0.05	0.05
	b) Pre-commissioning of LAVT panel	0.20	0.05	0.05	0.05	0.05
	c) Erection and commissioning of NG transformer, cabling and termination	0.60	0.15	0.15	0.15	0.15
	TOTAL	1.00				
R	UNIT AUXILIARY TRANSFORMAER					
	a) Erection of UAT, cabling and termination	0.50	0.125	0.125	0.125	0.125
	b) Commissioning/testing of UAT	0.50	0.125	0.125	0.125	0.125
	Total	1.00				
S	CONTROL AND MOPNITORING SYSTEM					
	a) Erection of Panels; cabling and termination.	1.00	0.25	0.25	0.25	0.25
	b) Pre-commissioning/test of panels.	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.00				
T	CONTROL AND PROTECTION SYSTEM					
	a) Erection of Panels; cabling and termination.	1.00	0.25	0.25	0.25	0.25
	b) Pre-commissioning/test of panels.	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.00				
U	220V DC SYSTEM					
	a) Installation of batteries	0.80	0.80			
	b) Installation of Battery Charger panel; cabling and termination	1.60	1.60			
	c) Commissioning of 220VDC system	1.00	1.00			
	d) DCDB erection, cabling, termination and commissioning	0.60	0.60			
	TOTAL	4.00				
V	415V LT SWITCHGEAR SYSTEM					
	a) Erection of panels and associated items; cabling and termination (UAB & SSB).	1.50	0.38	0.38	0.38	0.38
	b) Commissioning of system	1.00	0.25	0.25	0.25	0.25
	TOTAL	2.50				
W	LOW PRESSURE COMPRESSED AIR SYSTEM					
	a) Installation of Low Pressure Air system, piping etc	1.00	0.70	0.10	0.10	0.10
	b) commissioning of LP Air system	1.00	0.70	0.10	0.10	0.10
	TOTAL	2.00				
X	DEWATERING & DRAINAGE SYSTEM					
	a) Erection of Dewatering pumps-motors	0.40				
	b) Erection of drainage system pumps	0.60				
	c) Commissioning of Dewatering system	0.50				
	d) Commissioning of Drainage system	0.50				
	TOTAL	2.00				
Y	COOLING WATER SYSTEM					

	a) Erection of pumps-motors, strainer, pipings(HT) and coolers for primary pumps	1.00	0.70	0.10	0.10	0.10
	b) Erection of pumps-motors, strainer, pipings(HT) and coolers for secondary pumps	1.00	0.70	0.10	0.10	0.10
	b) Commissioning system	1.00	0.70	0.10	0.10	0.10
	TOTAL	3.00				
Z	FIRE FIGHTING SYSTEM					
	a) Erection of Gen. Fire fighting system	0.50	0.125	0.125	0.125	0.125
	b) Commissioning of FF system	0.50	0.125	0.125	0.125	0.125
	TOTAL	1.00				
AA	415V AC NON- SEGREGATED BUSDUCT					
	a)Erection of bus ducts, insulators, space heaters etc.	1.00				
	b) HV testing and commissioning	0.50				
	TOTAL	1.50				
BB	COMMISSIONING					
	a)Dry Test	0.50	0.125	0.125	0.125	0.125
	b)Wet Test	0.50	0.125	0.125	0.125	0.125
	c)Spinning and bearing Run	0.50	0.125	0.125	0.125	0.125
	d)Synchronisation	0.50	0.125	0.125	0.125	0.125
	e)Full Load	0.50	0.125	0.125	0.125	0.125
	f)Trial/reliability Run	0.50	0.125	0.125	0.125	0.125
	g)Handing Over	2.00	0.50	0.50	0.50	0.50
	h)Field Efficiency Test	3.00				
	TOTAL	8.00				
	GRAND TOTAL	100.00				

1)The above break-up is for billing purpose only and may not cover all the equipments covered under the scope. The total work under this scope as detailed in the tender specification shall be completed by contractor within accepted rate

2) Field Efficiency Test shall be carried out on one unit only.

TENDER NO : PSER:SCT:KMG-T792:07

**VOLUME – III A (Rev.01)
(ABSOLUTE VALUE)**

PRICE SCHEDULE

FOR

**MATERIAL HANDLING, ERECTION, TESTING,
COMMISSIONING, TRIAL RUN AND FIELD EFFICIENCY
TEST OF 4X150MW VERTICAL FRANCIS TURBINE-
GENERATOR ALONG WITH ITS AUXILIARIES,
EXCITATION SYSTEM, CONTROL, PROTECTION,
MONITORING SYSTEMS INCLUDING ELECTRICALS
AND C&I SYSTEMS OF KAMENG HYDRO ELECTRIC
PROJECT, NEPCO, KIMI, WEST KAMENG DISTRICT,
ARUNACHAL PRADESH**

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Power Sector – Eastern Region

Plot No. 9/1, Block-DJ, Salt Lake City,

Kolkata – 700 091 (INDIA)

1.0 PREAMBLE:-

- 1.1 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.
- 1.2 The Rate schedule / quantities shall be read along with all the other sections of this tender. All the activities as mentioned in complete tender (including VOL-IB. VOL-II, Pre bid MOMs etc) shall be performed by contractor within quoted/accepted rates as per this rate schedule. BHEL decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to other sections of the tender.
- 1.3 The tenderer shall be deemed to have studied the specifications and details of work to be done and to have acquainted himself of the conditions prevailing at site.
- 1.4 The individual quantities shown against the various items /groups / categories are approximate only and may vary to any extent. The basic rates quoted /accepted shall remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in total value of work executed under any part of this contract including extra items, if any but excluding any price variation / ORC remains within +/- 20% of the awarded price as given in LOI..
- 1.5 All works item-wise, shall be measured upon completion and paid for on the basis of the rates quoted and accepted & as per billing break-up as per vol-II.
- 1.6 All the items of work mentioned in the rate schedule as covered by this contract shall include all labour, tools and plants, tackles etc. required to complete the job, all at the cost of the contractor as defined in the tender specification. The rates quoted shall be inclusive of cleaning the site of any vegetation, dressing and levelling, if any, etc., required for commencement of site activities. No separate payment will be made towards the same. Quoted rate shall be inclusive of all taxes (except service tax) , duties as detailed in tender specification.

Service tax (as applicable) shall be reimbursed extra against submission of documentary evidence to the satisfaction of BHEL. As such, the bidder's quoted rate shall not be inclusive of the service tax.

- 1.7 Rate shall be quoted both in figure and words in clear legible writing. No overwriting is allowed. The tenderer should sign all scoring and cancellations. In case of illegibility, the interpretation of the Engineer shall be final. All entries shall be in English language. No items should be left blank.

For evaluation purpose (deciding L1), Grand total price quoted by bidders (1.1 + 1.2 + 1.3 + 1.4 + 1.5 + 2.1) in enclosed RATE/PRICE schedule shall only be considered.

- 1.8 **Note:** Bidder to note the following for quoting their rates.

- A) Re-shifting: If during execution of work, any material which is already unloaded, verified, stacked at store yard/store/work site as per instruction and satisfaction

of BHEL site authority, need to be re-handled/re- shifted beyond 250 metre at any other place within project premises, all the relevant activities for above shall be termed as RE-SHIFTING and is included in the scope of work.

B) Re-stacking: If during execution of work, any material which is already unloaded, verified, stacked at store yard/store/work site as per instruction and satisfaction of BHEL site authority, need to be re-handled/re-shifted within 250 metre and re-stacked at any other place within project premises, all the relevant activities for above shall be termed as re-stacking which is included in the scope of work.

1.9 Bidders must specifically note that, scope of this tender covers material management services for complete package, Erection and commissioning services, as detailed in vol-II. These activities shall be carried out by the contractor (successful bidder) within quoted/accepted rates, as per rate/price schedule (vol-III). Quoted/accepted rates against sl. no. D,& E, of rate/price schedule are also inclusive of material management services, even though not specifically mentioned in the description of these items.

1.10 Only authorised persons of bidder having power should sign in the price bid. All the four pages must be signed and stamped .

(SIGNATURE AND SEAL OF THE BIDDER)

RATE/PRICE SCHEDULE – (Rev-01)-(TO BE QUOTED BY THE BIDDER)

SL. NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE/ UNIT) (IN FIGURES AND WORDS)	TOTAL AMOUNT (IN RS.)
1	PACKAGE-A				
1.1	Receipt/taking delivery of materials at Kameng HEP, unloading from Trucks / Trailers, shifting to Site Stores / Storage yard, Verifying, Stacking, issuing, transportation up to work place/Power House/Assembly yard & handing over of Hydro Turbine and Generator & Aux., C&I of Hydro Turbine & Turbo-Generator, piping, insulations , providing services for materials management as detailed in tender specifications including issue of materials, transport and unloading of materials which are not in the scope of E & C contractor under Package-B (Refer-ANNEXURE-E).	MT	6500		
1.2	Re-shifting of materials as defined in the contract specification	MT	300		
1.3	Re-staking of materials as defined in the contract	MT	100		
1.4	Providing services for clearance/payment of Entry Tax at Bhalukpong VAT Gate and coordination with Tax Authority of Arunachal Pradesh at Bhalukpong/ Bomdila	NO. OF VEHICLES (TRUCK/ TRAILOR)	700		

SIGNATURE & SEAL OF THE BIDDER

RATE/PRICE SCHEDULE – (Rev-01)-(TO BE QUOTED BY THE BIDDER)

SL. NO	DESCRIPTION OF WORK	UNIT	QTY.	RATE/ UNIT) (IN FIGURES AND WORDS)	TOTAL AMOUNT (IN RS.)
1.5	Average single man hour rate including overtime, If any, supervision, use of required tools and tackles and other site expenses and incidentals including consumables/ preservatives for carrying out up-keepment, maintenance and preservation / Conservation works as per instruction of BHEL and as per scope given in tender specifications.	Man-hour	2000		
2	PACKAGE-B				
2.1	Receipt of materials from BHEL stores/open yards, transportation to erection/ assembly site, unloading, protection against loss/ damage of erected equipments till handing over to customer, erection, commissioning, trial run and PG test and final acceptance by customer as per specification. This does not include the BOPs mentioned in List of Exclusion and Terminal points (ANNEXURE-E).	L/S	Four Units		
	GRAND TOTAL PRICE (SL.NO. 1.1 TO SL.NO. 2.1 OF ABOVE TABLE) – TO BE FILLED IN INDIAN RUPEES IN FIGURES AS WELL AS WORDS.				

SIGNATURE & SEAL OF THE BIDDER

TENDER NO : PSER:SCT:KMG-T792:07

**VOLUME – III B (Rev.01)
(PERCENTAGE VALUE)**

PRICE SCHEDULE

FOR

**MATERIAL HANDLING, ERECTION, TESTING,
COMMISSIONING, TRIAL RUN AND FIELD EFFICIENCY
TEST OF 4X150MW VERTICAL FRANCIS TURBINE-
GENERATOR ALONG WITH ITS AUXILIARIES,
EXCITATION SYSTEM, CONTROL, PROTECTION,
MONITORING SYSTEMS INCLUDING ELECTRICALS
AND C&I SYSTEMS OF KAMENG HYDRO ELECTRIC
PROJECT, NEEPCO, KIMI, WEST KAMENG DISTRICT,
ARUNACHAL PRADESH**

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

Power Sector – Eastern Region

Plot No. 9/1, Block-DJ, Salt Lake City,

Kolkata – 700 091 (INDIA)

1.0 PREAMBLE:-

- 1.1 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.
- 1.2 The Rate schedule / quantities shall be read along with all the other sections of this tender. All the activities as mentioned in complete tender (including VOL-IB. VOL-II, Pre bid MOMs etc) shall be performed by contractor within quoted/accepted rates as per this rate schedule. BHEL decision shall be final and binding on the contractor regarding clarification of items in the schedule with respect to other sections of the tender.
- 1.3 The tenderer shall be deemed to have studied the specifications and details of work to be done and to have acquainted himself of the conditions prevailing at site.
- 1.4 The individual quantities shown against the various items /groups / categories are approximate only and may vary to any extent. The basic rates quoted /accepted shall remain firm throughout the period of execution including extension, for reasons whatsoever, as long as variation in total value of work executed under any part of this contract including extra items, if any but excluding any price variation / ORC remains within +/- 20% of the awarded price as given in LOI.
- 1.5 All works item-wise, shall be measured upon completion and paid for on the basis of the rates quoted and accepted & as per billing break-up as per vol-II.
- 1.6 All the items of work mentioned in the rate schedule as covered by this contract shall include all labour, tools and plants, tackles etc. required to complete the job, all at the cost of the contractor as defined in the tender specification. The rates quoted shall be inclusive of cleaning the site of any vegetation, dressing and levelling, if any, etc., required for commencement of site activities. No separate payment will be made towards the same. Quoted rate shall be inclusive of all taxes (except service tax) , duties as detailed in tender specification.

Service tax (as applicable) shall be reimbursed extra against submission of documentary evidence to the satisfaction of BHEL. As such, the bidder's quoted rate shall not be inclusive of the service tax.

- 1.7 Rate shall be quoted both in figure and words in clear legible writing. No overwriting is allowed. The tenderer should sign all scoring and cancellations. In case of illegibility, the interpretation of the Engineer shall be final. All entries shall be in English language. No items should be left blank.

For evaluation purpose (deciding L1), Grand total price quoted by bidders (1.1 + 1.2 + 1.3 + 1.4 + 1.5 + 2.1) in enclosed RATE/PRICE schedule shall only be considered.

- 1.8 **Note:** Bidder to note the following for quoting their rates.

- A) Re-shifting: If during execution of work, any material which is already unloaded, verified, stacked at store yard/store/work site as per instruction and satisfaction

of BHEL site authority, need to be re-handled/re- shifted beyond 250 metre at any other place within project premises, all the relevant activities for above shall be termed as RE-SHIFTING and is included in the scope of work.

B) Re-stacking: If during execution of work, any material which is already unloaded, verified, stacked at store yard/store/work site as per instruction and satisfaction of BHEL site authority, need to be re-handled/re-shifted within 250 metre and re-stacked at any other place within project premises, all the relevant activities for above shall be termed as re-stacking which is included in the scope of work.

1.9 Bidders must specifically note that, scope of this tender covers material management services for complete package, Erection and commissioning services, as detailed in vol-II. These activities shall be carried out by the contractor (successful bidder) within quoted/accepted rates, as per rate/price schedule (vol-III). Quoted/accepted rates against sl. no. D,& E, of rate/price schedule are also inclusive of material management services, even though not specifically mentioned in the description of these items.

1.10 Only authorised persons of bidder having power should sign in the price bid. All the four pages must be signed and stamped .

(SIGNATURE AND SEAL OF THE BIDDER)

RATE/PRICE SCHEDULE – (Rev-01)-(TO BE QUOTED BY THE BIDDER)

SL. NO	DESCRIPTION OF WORK	UNIT	QTY.	PRICE IN PERCENTAGE(%) OF TOTAL PRICE FOR EACH ITEM
1	PACKAGE-A			
1.1	Receipt/taking delivery of materials at Kameng HEP, unloading from Trucks / Trailers, shifting to Site Stores / Storage yard, Verifying, Stacking, issuing, transportation up to work place/Power House/Assembly yard & handing over of Hydro Turbine and Generator & Aux., C&I of Hydro Turbine & Turbo-Generator, piping, insulations , providing services for materials management as detailed in tender specifications including issue of materials, transport and unloading of materials which are not in the scope of E & C contractor under Package-B (Refer-ANNEXURE-E).	MT	6500	
1.2	Re-shifting of materials as defined in the contract specification	MT	300	
1.3	Re-staking of materials as defined in the contract	MT	100	
1.4	Providing services for clearance/payment of Entry Tax at Bhalukpong VAT Gate and coordination with Tax Authority of Arunachal Pradesh at Bhalukpong/Bomdila	NO. OF VEHICLES (TRUCK/TRAILOR)	700	

SIGNATURE & SEAL OF THE BIDDER

RATE/PRICE SCHEDULE – (Rev-01)-(TO BE QUOTED BY THE BIDDER)

SL. NO	DESCRIPTION OF WORK	UNIT	QTY.	PRICE IN PERCENTAGE(%) OF TOTAL PRICE FOR EACH ITEM
1.5	Average single man hour rate including overtime, If any, supervision, use of required tools and tackles and other site expenses and incidentals including consumables/ preservatives for carrying out up-keepment, maintenance and preservation / Conservation works as per instruction of BHEL and as per scope given in tender specifications.	Man-hour	2000	
2	PACKAGE-B			
2.1	Receipt of materials from BHEL stores/open yards, transportation to erection/ assembly site, unloading, protection against loss/ damage of erected equipments till handing over to customer, erection, commissioning, trial run and PG test and final acceptance by customer as per specification. This does not include the BOPs mentioned in List of Exclusion and Terminal points (ANNEXURE-E).	L/S	Four Units	
	GRAND TOTAL PRICE (SL.NO. 1.1 TO SL.NO. 2.1 OF ABOVE TABLE) – TO BE FILLED IN INDIAN RUPEES IN FIGURES AS WELL AS WORDS.			100%

SIGNATURE & SEAL OF THE BIDDER

4.1 Terms Of Payment:

The percentage break-up for Erection & Commissioning for four units and common system for the purpose of Stage payments shall be as per ANNEXURE: A1 for material handling and ANNEXSURE: A2 for E&C work.

The breakup in Annexure-A1 & A2 is for payment purpose only and can not be referred a exhaustive list of activities. The total work under this scope as detailed in the tender specification shall be completed by the contractor within the accepted price.

4.1.1 Out of the above progressive payment (RA bills) ,

4.1.1.1 15 % of gross bill amount shall be paid in the following manner on certification by BHEL engineer after compliance of each of following activity in each month. In case of non-fulfilment of respective activity by vendor in each month, no payment shall be made by BHEL against corresponding activity and no claim of bidder at a later date, whatsoever, in this regard shall be entertained by BHEL.

a) 7 % shall be paid on compliance of house keeping of vendor's working area and store/ office areas.

b) 3 % shall be paid on compliance of general illumination of vendor's working area and stores, office area.

c) 2 % shall be paid on compliance of applicable OHSAS requirement as per guidelines of BHEL/ PSER and as specified in the tender.

d) 3 % shall be paid on compliance of applicable Safety requirement as per guidelines of BHEL/ PSER and as specified in the tender.

4.1.1.2 10 % will be retained from each RA Bill which will be released on completion of warranty period of 18 months of the 4th unit/ lat unit commissioned.

4.1.2 The warranty period shall commence from the date of certification of handing over of the last unit after trial run.

4.1.3 *However the above 10% payment can be released only after certification of handing over of the last unit after trial run, against the submission of Bank Guarantee valid for 18 Months for an equivalent amount in the prescribed format on the date of commencement of guarantee subject to be receipt of certificate that all works are completed.*

The submission of Bank Guarantee towards above is separate and the bank guarantee towards security deposit cannot be utilized for this purpose. The security deposit will be refunded as per certificate of site on completion of final bill formalities as per relevant clauses of GCC.

NOTE:

1. No levy or payment or charge made or imposed shall be impeached by reason of any clerical error or demanded or charged.
2. BHEL at it's own discretion, may further split up the above percentage and effect payment to suit the site conditions, cash flow requirement, according to the progress of work.
3. BHEL may release payment through electronic mode, for which bidder shall comply with necessary requirement prior to payment as per format given below.

FORMAT

From for getting payment through RTGS (Real Time Gross Settlement)

01. Name of Vendor
02. Address
03. Vendors Bank A/c Name
04. Vendors Bank A/c No.
05. Name of Bank
06. Name of Branch
07. Branch Phone No.
08. City
09. IFSC Code of the Branch

The charges if any for the payment through RTGS may be recovered from the Bill submitted by us.

Signature of the Authorised
Banker
Representative of Vendor with date & seal

Confirmation by

with office seal

Note : Incorrect information will create Accounting complications and payment will be delayed.

2.37.13 Facilities For Maintenance Of “Health, Safety And Environment.

The contractor should make adequate arrangement of maintaining adequate level of HSE standard as laid down in the BHEL manual for HSE in Hydro Projects at all places of work at his own cost. The contractor at his cost should do all the arrangements sought as per the documents mentioned earlier in this clause for maintaining requisite standard of HSE. Any lapse in this regard will lead to breach of contract and may attract legal complications of any nature for which the sole responsibility lies with the contractor.

The vendor will follow HSE policy of BHEL/ PSER and work as per the safety guidelines which is in line with ISO:14001 and OHSAS:18001 standards. A list of the guidelines which should be strictly followed by the vendor is as follows. The scope of vendor shall not be limited to the followings only but shall be guided by the HSE related policies/ guidelines of BHEL as revised to suit the requirement of the standards and statutory requirements.

- 1.0 Nominate a safety officer who will supervise all the HSE aspects.
- 2.0 The safety officer will participate in all safety meeting conducted by BHEL.
- 3.0 Submit site safety plan indicating safety measures to be taken, fire fighting equipments & PPE to be deployed.
- 4.0 Report every near miss incident to BHEL.
- 5.0 Report accident report immediately after the occurrence.
- 6.0 Obtain operation control procedures (OCPs) from BHEL for the work to be executed
- 7.0 Follow factory act.
- 8.0 Every worker should use PPE as per his trade. All PPE should conform to IS.
- 9.0 Conduct tool box meeting with workers everyday before start of work instructing about the use of PPE. The outcome of the meeting to be recorded in a register.
- 10.0 Check fitness of the PPE and lifting tackles weekly and record in a register which will be verified by BHEL.
- 11.0 No person below 18 years will be employed.
- 12.0 Deploy fire-fighting equipments and refill before expiry.
- 13.0 Keep fire extinguishers of adequate type near the hot job and near the electrical machines.
- 14.0 Copy of valid Test certificates of all T&Ps should be given to BHEL as soon as the item enters the project, without which the T&P can not be allowed to be used.
- 15.0 No body will be allowed to work above 2 meters without safety belt/ harness with lifeline secured to a fixed member.
- 16.0 Good housekeeping has to be maintained. All debris shall be removed from workplace within shortest possible time.
- 17.0 Approach roads should not be blocked with cables, materials or debris.
- 18.0 First aid boxes have to be kept and maintained with all requisite materials as per factory act.
- 19.0 Trained person has to be kept for giving first aid.
- 20.0 Adequate illumination shall be provided where working.
- 21.0 All vehicles should have backlight, reverse horn and reversing light.

- 22.0 Crane operator shall have proper license.'
- 23.0 Crane should have reverse horn.
- 24.0 Only skilled person maintain and operate electrical items.
- 25.0 ELCB has to be used. No temporary connection shall be allowed.
- 26.0 All fuses shall have standard rating and capacity.
- 27.0 All power supply cables should be laid above 3 meter level or underground.
- 28.0 All hand lamps should be powered by 24 volts.
- 29.0 Water-logging of working area shall be removed.
- 30.0 For operating portable machines 3 pin plugs shall be used.
- 31.0 Oxygen and DA cylinders shall be separated labeling full or empty. Full cylinders shall be kept upright.
- 32.0 Cylinders are not transported by rolling.
- 33.0 All oil drums shall be kept horizontal.
- 34.0 Excavated area shall be barricaded off with red-& white tape.
- 35.0 Proper slope of excavation shall be maintained.
- 36.0 Proper sign board and illumination shall be maintained at excavated area.
- 37.0 Wherever possible safety net shall be provided.
- 38.0 Proper platform and hand rail has to be provided at the work place.
- 39.0 All electrical equipments shall be earthed at two points.
- 40.0 Temporary platform should be strong enough, have proper approach and hand rails

The above clauses are indicative only and not exhaustive. The other activities to maintain strong HSE conditions at site which may be beyond the above list of guidelines shall have to be done by the vendor.