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TENDER NO. BHEL: NR(SCT):KOSTI:INFRA:361

T E N D E R S P E C I F I C A T I O N

FOR

**Infrastructure Development for BHEL Site at
4x125 MW Kosti TPP, Sudan.**

PART I – TECHNICAL BID



**Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA**

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ISO 9001-2000, ISO 14001
and OHSAS 18001 certified
company
SubContract and Purchase
Deptt.

Bharat Heavy Electricals Limited
(A Govt. Of India Undertaking)
Power Sector – Northren Region,
Plot No. 25 , Sector - 16A ,
Distt. Gautam Budh Nagar, NOIDA – 201 301.INDIA
Phone: 0091-0120-2515476 / 2515464 / 2515479
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IMPORTANT NOTE

PURCHASER OF THIS TENDER DOCUMENT IS ADVISED TO CHECK AND ENSURE COMPLETION OF ALL PAGES OF TENDER DOCUMENT AND REPORT ANY DISCREPANCY TIMELY FOR CORRECTIVE ACTION, IF ANY, TO THE ISSUING AUTHORITY BEFORE THE BIDS ARE SUBMITTED. ORIGINAL COPY OF TENDER DOCUMENT COMPLETE IN ALL RESPECTS MUST BE SUBMITTED BACK AS PART OF THE BID WITHOUT WHICH THE SAME IS LIABLE TO BE REJECTED BY BHEL.

THIS TENDER SPECIFICATION ISSUED TO:

M/S-----

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TENDER NOTICE

Sealed tenders are invited from the contractors fulfilling qualifying requirements for the “Infrastructure Development for BHEL Site at 4x125 MW Kosti TPP, Sudan.”

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QUALIFYING REQUIREMENTS:

- The tenderer should be a Sudanese Company, or any other company having an office in Sudan.
- The party should have the experience of providing portacabins and carrying out building construction work ‘OR’ the party should be experienced in one of the two activities and should have a suitable tie-up for the other.

NOTES:

- (i) The Tender Documents comprise of following;
 - (a) General Conditions of Contract
 - (b) Special Conditions of Contract, Tender Notice, Project Synopsis etc.
 - (c) BOQ cum Rate Schedule
 - (d) Annexure
- (ii) Tender Documents with complete details are hosted in this web page. Bidder(s) intending to participate may download the tender document from the web site. Bidder(s) downloading the tender documents from the web site, shall remit Rs.1000/- (Rupees One thousand only) in the form of crossed demand draft (non-refundable), in favour of BHEL, NOIDA along with their offer
- (iii) Bidder(s) can also purchase hard copy of tender documents from this office. Tender documents (non transferable) will be issued on all working days between 09.30 Hrs. to 12.30 Hrs within the sale period i.e **upto 09.10.2006** on payment of Rs.1,000/- (non-refundable) either in cash or by crossed demand draft in favor of BHEL, NOIDA. Request for issue of tender document should clearly indicate Tender No. and work.

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- (iii) Tenders must be submitted to the undersigned **latest by 10.10.2006** before opening of technical bids commences. Technical bids shall **be opened at 15.30 Hrs. on 10.10.2006**.
- (iv) Earnest Money Deposit (EMD) : Refundable, Non-interest bearing **EMD of Indian Rupees 2,00,000/- or US \$ 5,000/- (for foreign bidders)** shall be deposited by Account Payee Pay Order 'OR' Demand Draft in favour of " Bharat Heavy Electricals Limited" payable at Delhi, INDIA. Those bidders who have already deposited ' One Time 'EMD' of Rs. 2,00,000/- with BHEL, PSNR, NOIDA need not submit EMD with the present tender.
- (v) Tenders not accompanied with Full Earnest Money Deposit, as indicated above, will not be considered.
- (vi) All corrigenda, addenda, amendments and clarifications to this Tender will be hosted in this web page and not in the newspaper. Bidders shall keep themselves updated with all such amendments.
- (vii) BHEL reserves the right to accept or reject any or all tenders without assigning any reason whatsoever.
- (viii) BHEL takes no responsibility for any delay/loss of documents or correspondences sent by courier/post.
- (ix) Purchase Preference will be given to CPSUs as per Govt. Guidelines.
- (x) **Unsolicited rebate / discount shall not be accepted after bid opening**

AGM/SCP

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NOTICE INVITING TENDER

LAST DATE OF SALE : 09.10.2006
DUE DATE : 10.10.2006
DATE OF OPENING : 10.10.2006

NIT NO. / NAME OF WORK
<p align="center">TENDER NO. BHEL: NR(SCT):KOSTI:INFRA:361</p> <p>Sealed tenders are invited from the contractors fulfilling qualifying requirements for the “Infrastructure Development for BHEL Site at 4x125 MW Kosti TPP, Sudan.”</p>

NOTES

1. Purchase Preference will be given to CPSU as per Govt. Guidelines.
2. Please visit our website at www.bhel.com for details of NIT including Qualifying Requirements.
3. Earnest Money Deposit (EMD) : Refundable, Non-interest bearing **EMD of Indian Rupees 2,00,000/- or US \$ 5,000/- (for foreign bidders)** shall be deposited by Account Payee Pay Order 'OR' Demand Draft in favour of “ Bharat Heavy Electricals Limited” payable at Delhi, INDIA. Those bidders who have already deposited ‘ One Time 'EMD' of Rs. 2,00,000/- with BHEL, PSNR, NOIDA need not submit EMD with the present tender.

AGM/SCP

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PROCEDURE FOR SUBMISSION OF SEALED TENDERS:

The tenderers must submit their tenders as required in **two parts** in separate sealed covers **prominently superscribed as Part-I Technical bid and Part-II ,Price bid** also indicating on each of the cover tender specification no., date and time as mentioned in tender notice.

TECHNICAL BID (COVER-I)

Except **Price bid Part-II**, complete set of tender document consisting of General conditions of Contract, “Technical specification & Special terms and condition” (Part-I) issued by BHEL shall be enclosed in **Part I Technical Bid only**. All schedules, data sheets and details called for in the specification shall also be submitted along with technical bid. All details / Data / Schedules including offer letter duly signed and stamped are to be **submitted in duplicate**.

PRICE BID (COVER-II)

Tenderers may please note that price bid is **to be submitted only in original copy** of Tender i.e. Price bid (Part-II) issued by BHEL and no duplicate copy of same is required.

These Two separate covers i.e. cover I & II shall together be enclosed in a **third envelope (Cover-III)** and this sealed cover shall be superscribed with tender specification No., due date, time and submitted to officer inviting tender as indicated in tender notice on or before due date as indicated.

PROJECT SYNOPSIS

Bharat Heavy Electricals Ltd. ("BHEL"), a Public Sector Undertaking, Government of India, has been entrusted with the work of Design, Supply, Erection, Commissioning and handing over, on turnkey basis, the Kosti Power Station to NATIONAL ELECTRICITY CORPORATION, SUDAN in a period of 45 months.

The project site is around 500M from Rabak Sinnar highway near River White Nile about 8 KM from Rabak and about 25 KMs from Kosti. The aerial view & plot plan of the project site are placed in the tender as **Annexure-A**.

As part of its construction, erection, testing & commissioning activities BHEL is planning to build a office, store and residential camp at the project site. Prior to quoting this tender the bidders are advised to visit the site, to be fully conversant with the prevailing conditions under which the work is to be executed to avoid disputes of any nature at later stage due to lack of knowledge of site conditions.

SECTION - III

SPECIAL CONDITIONS OF CONTRACT

Clause No.	Title

34.0	General Scope of Work
35.0	Instructions to Tenderers & Qualifying Requirements
36.0	Contractor's Supervision
37.0	Supervisory Staff & workmen
38.0	Tools & Plants
39.0	Materials
40.0	Execution of the work
41.0	Compliance to regulation & bylaws
42.0	Facilities to be provided by BHEL/ Contractor
43.0	Progress reporting
44.0	Drawings & Documents
45.0	Price Variation and over run
46.0	Taxes & Duties
47.0	Custom Duty & Custom Clearance
48.0	Insurance
49.0	Payments
50.0	Rate Schedule
51.0	Time Schedule
52.0	Liens
53.0	Other Miscellaneous Conditions

SECTION-III

SPECIAL CONDITIONS OF CONTRACT

34.0 General Scope of work:

To design (from concept to commissioning) supply, install, operate & maintain the office, stores and residential camp at 4 x 125 MW Kosti Power Project. The camp will broadly comprise of pre-fabricated air-conditioned Porta-cabin office & living accommodation, including pantry, kitchen, dining, recreation, laundry and open / semi closed / closed office/ storage shed/ yard and supporting systems like electric-power distribution, illumination, water, communication, first aid/medical, fire protection, security / watch & ward, vehicles with drivers, parking area, fencing, drainage / sewage and visa/travel liaison etc., as detailed in BOQ cum rate schedule enclosed with price bid (Part II), for exclusive use of BHEL. The scope of work broadly includes, but not limited to the following:

- 34.1 **The successful bidder shall submit schemes, detailed specifications, drawings & Billing Break up for BHEL approval before start of work. The rates quoted shall be on Build, Operate, Maintain, dismantle & taking back.**
- 34.2. Office and Stores sheds / Yard.**
- 34.2.1 **The specifications covers the construction of all works for development of office and storage area with one office, four covered and two semi-covered storage sheds. Works under this tender includes steel/wooden doors/ windows, plumbing, sanitation, sewage, septic tank, electrification including supply of materials, labour, consumables, transportation, sample-testing etc. Each covered storage shed shall have rolling shutter type doors and Manual operated overhead traveling crane of 5 MT capacity inside the shed, in which long travel & cross travel are manually operated and hoisting is motor operated, approximate 10 Meters span & working height of 5.5 Meters. These cranes shall be taken back by the Contractor after completion of work.**
- 34.2.2 Survey, grading, leveling & layout will be in the scope of the contractor within the quoted rates. Land available being relatively plane major leveling is not involved. However the bidder will make own assessment by visiting the area before quoting.
- 34.2.3 The sheds / Porta-cabins have to be designed and fabricated as per International Standard considering climatic conditions with wind & earthquake loads as applicable in Sudan.

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- 34.2.4 The indicative location of the office, stores & residential camp is given in **Annexure B. The bidder will submit the proposed layout drawings along with technical bid for scrutiny.**

34.3 Porta-cabins: Office & Residence.

- 34.3.1 The Porta-Cabins offered should be of plug-in and-use type, resistant to hostile environment and have to be designed and fabricated as per International Standard considering climatic conditions with wind & earthquake loads as applicable in Sudan.

- 34.3.2 The scope includes supply, transportation, installation, commissioning (including all types of civil works involved in the installation of the cabins like excavation, casting of concrete sleepers, sewerage, plumbing, water etc.), maintenance & dismantling / clearing site at the end of the contract, within the quoted rates.

- 34.3.3 All furnishings & accessories as illustrated in BOQ will be in the bidders scope within the quoted rate.

- 34.3.4 The specifications are broadly detailed in **Annexure C**. The bidders will submit the detailed layout specifications and drawings covering all aspects listed therein along with technical bid

34.4 Miscellaneous / liaison work:

- 34.4.1 Arrange visas, travel tickets work permit / licenses, clearance & exemptions from Ministries / Govt. Bodies / Customer for BHEL staff and other officials, liaison with Government and other statutory bodies, meeting all statutory & regulatory Codes, Acts, Standards, for entire duration of contract. While all the statutory fees / ticket charges etc shall be reimbursed by BHEL on submission of receipt, other expenses of all types (including expenditure towards maintaining office for such works in Khartoum) are to be borne by the contractor.

34.5 Vehicles:

- 34.5.1 The contractor will provide new air-conditioned vehicles listed out in BOQ of international-makes, duly registered with statutory authorities and possessing all types of permits / licenses and third party insurance.

- 34.5.2 Operating fuel-charges will be borne by BHEL on average claimed by the maker at prevailing market rates.

- 34.2.3 In case of theft, accident and breakdown the contractor will make the suitable substitute available within four hours failing which BHEL reserves the right to arrange the same at the risk & cost of the contractor & to recover the entire expenditure incurred by BHEL.

34.6 Power Supply:

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- 34.6.1 3 Phase, 440V electric supply will be made available by BHEL/Customer at one point, **free of any charges**, close to the construction area. The scope of the contractor includes design, supply, installation, testing, commissioning, operation and maintenance of the power supply system for construction and for camp office, stores, residential area, area illumination including lighting masts meeting all the electricity rules & regulations of Sudan.
- 34.6.2 The contractor has to run overhead line through poles or underground cable from terminal point of customer to respective place of use like office, stores, residential camp etc within the battery limit of the plant.
- 34.6.3 The 440V, 1000A Power Distribution Board has to be designed / installed covering the features like air circuit breaker having electrical operation, mechanical spring charging, O/C + E/F protection) , bus-bars (copper), including normal indications and metering and earth bus for distribution of power to construction site, office, stores & residential camp.
- 34.6.4 While the interior of the substation has to be cement floored the outer area has to be covered with gravels and fenced with diamond type wire net
- 34.6.5 In camp office, stores and residence the contractor will install dedicated PDBs of suitable capacity.
- 34.6.6 Laying overhead-lines/underground cable from above substation to office, stores, residential-camp & Housing Estate will be within the scope of work of the contractor.
- 34.6.7 General illumination of the entire battery area including masts and street lighting poles is in the scope of work.
- 34.6.8 **Uptill the commissioning of the substation and charging of the distribution lines, the contractor will arrange Diesel Generating set of suitable capacity for construction / installation of electric power supply / distribution system and for temporary porta cabins.**
- 34.6.9 **As a backup supply for office and residential camp the contractor will supply operate and maintain Diesel Generating set adequate for illumination, fans, computers and communication facilities only.**
- 34.6.10 Two numbers lightening arrestors duly earthed will be installed at illumination masts.

34.7. Water supply:

- 34.7.1 **BHEL/Customer will make available construction/potable water ,free of any charges, within 200M from the project premises.** The scope of work of the contractor includes broadly but not limited to the following:
- a) To supply & install construction / potable – water distribution grid of GI pipes from customer terminal point to individual utilities like pantry, kitchen, water-cooler, toilet, overhead tanks etc. of office, stores, residential camp and terminal point of housing estate water distribution system.

- b) Supply & installation, including maintenance, of On-line water filters (one each in residential complex & office complex), for potable water, of International standards will be within the scope of work.

34.8 Fire-Fighting System.

- 34.8.1 The scope covers supply / installation / maintenance of following types of portable fire extinguishers.

CLASS OF FIRE-- 'A' (For fire involving paper, wood, textile, rubber etc):

Soda Acid type 'OR' Water type (gas-pressure) 'OR' water type (constant air pressure). Size of each extinguisher – 9 Ltr. capacity. Minimum Requirement shall be 4 numbers per floor / room. Accessibility of each extinguisher should be within 15M reach. Qty of 1 No. Extinguisher for 600 M2 or part.

CLASS OF FIRE-- 'B' (Fire involving flammable liquids like oils, solvents, varnishes, paints etc);

FOAM/CARBON DIOXIDE / DRY chemical powder: Two numbers of 9 Ltrs. Foam 'OR' 5 Kg. Dry powder for every 50 M2 of floor area or part, should not require more than 10M to travel to reach the extinguisher.

CLASS OF FIRE 'C' (Fire involving Flammable gases):

CARBON DIOXIDE / DRY chemical powder: Two numbers of 10 kg. Powder fire extinguisher or 6 Kg. CO2 for every 100M2 floor area or part. Minimum requirement of 3 Nos. per floor/room requiring not more than 10M to reach any extinguisher.

- 34.8.2 **Laying of fire hydrant grid to cover approx. 100,00 Sq.m. area of office, closed/semi-closed and open storage sheds/yards with risers at appropriate distances including supply of deluge-valves, nozzles & hose pipes.**

34.10 Security:

- 34.10.1 The overall security and watch and ward will be provided by the customer. Providing of adequate number of security guards, as per BOQ, familiar with fire-fighting, for watch & ward and internal security of BHEL personnel and materials will be in the scope of this tender.
- 34.10.2 **The Contractor shall ensure that Guards etc. engaged against this contract are educated, of good moral character, never having been convicted of a criminal offence by a Court of Law, physically fit without any permanent physical or mental disability and are under the age of 55 years.**
- 34.10.3 BHEL may call for proof of fitness, including police verification, from the Contractor in respect of any Guard and if necessary, order the Contractor to get any Guard medically checked by an authorized Doctor at the Contractor's expense and withdraw him from duty if not found fit.

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- 34.10.4 The Contractor shall, in respect of each security person engaged against this contract, supply BHEL with the following information:-
- Name, Father's name, Date of Birth, Educational Qualification, two identifying body marks, full residential address, past experience, home address and a passport size photograph. The Contractor may substitute any Guard or Head Guard with prior intimation in writing. The Contractor shall provide each employee with an identity card with photograph.
- 34.10.5 **In case of the work requirement getting reduced/increased BHEL may with 15 days notice, order the Contractor to reduce/increase staff.**
- 34.10.6 The Contractor shall ensure that Guards are deployed round the clock in shifts. **BHEL shall not be responsible for payments for excess security persons, substitutes, duties performed on holidays and any overtime.** The Contractor shall maintain an Attendance Register and Muster Roll of payments for its employees which the assigned Company officials shall be entitled to inspect.
- 34.10.7 **The Contractor shall provide accommodation to their employees at the nearest place of their posting.**
- 34.10.8 **Duties And Liabilities Of The Contractor:**
- a) The Contractor shall arrange to post Security Guard/Head Guard/ Supervisor at such places and in such manner that guarding, patrolling search of incoming & outgoing vehicles and persons whenever necessary in the area/premises is done throughout 24 hours of the day.
 - b) The Contractor shall provide Security Guard/Head Guard with all necessary facilities in the form of Registers, Stationery, Torches, Umbrellas, Batons, Lathies, Uniform, Shoes, Socks, Rain Coat and other uniform items etc. at their own cost.
 - c) The Contractor shall supervise the Security Guard/Head Guard/ Supervisor adequately and ensure that performance and turn-out is such that the purpose of the contract is fully achieved.
 - g) The Contractor shall preserve all records maintained for BHEL and hand them over to the Construction Manager from time to time and positively at the end of the Contract period.
- 34.10.9 **DUTIES OF THE GUARD AND HEAD GUARD SHALL INCLUDE THE FOLLOWING:**
- (A) **SECURITY GUARD**

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- a) To extend all courtesy to visitors, customers and BHEL employees and to maintain integrity, orderliness and discipline and be in proper prescribed uniform while on duty.
- b) To guard/patrol/check during day and night and ensure than no theft, pilferage, trespass, accident, nuisance, disturbance of peace and order lines, etc. takes place in the area of his duty.
- c) To man entry / exit points and regulate and check the flow of men, materials, transport vehicles etc. and ensure that the entry/exit is as per valid documents and proper records of the same are maintained.
- d) To apprehend immediately, produce before the competent BHEL officers any trespasser or person moving unauthorisedly and under suspicious circumstances.
- e) To watch habitual offenders and mischief makers and inform the competent BHEL Officers, if anything unusual is noticed.
- f) To seize goods not found in order or suspected to be stolen and report to BHEL.
- g) To ensure that fire equipment installed in the area under his watch, is in working order and bring to the notice of the competent BHEL Officer any defect or shortcoming. To ensure replacement of fire equipments immediately on its expiry.
- h) To bring to the immediate notice of the competent BHEL Officer, any untoward occurrence on the premises, preferably in writing.
- i) To carry out any other duties assigned by the competent company officers/ Construction Manager within the terms of the Agreement.

(B) SECURITY HEAD GUARD/SUPERVISOR

- a) To extend all courtesy to visitors, customers and company employees and maintain integrity, orderliness and discipline on the premises while on duty and be in a proper prescribed uniform, exhibit proper courtesy and discipline and carry out all tasks allotted by the Contractor in pursuance of the contract.
- b) Detail check and supervise regularly duties performed by security guards and enforce good behaviour, discipline, rotation of duties, disciplinary action etc.
- c) Bring to the notice of BHEL officer, preferably in writing, all important matters connected with the contractual duties of the Contractor, immediately.
- d) Carry out necessary improvements ordered by BHEL official or the Construction Manager or the Contractor.
- e) Carry out all liaison duties with the local police as required in performance of the contract.
- f) Ensure that all security and Fire fighting equipment is secure in order and useable.

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- g) To carry out the internal investigation or enquiry in cases of theft, fire damage, accident, etc. as required by the competent BHEL official / Construction Manager and send a report within 15 days to BHEL official.
- h) In case of theft of BHEL property under the custody of the Contractor security personnel, a joint Investigation will be carried out by BHEL and Contractor representatives to identify the cause of theft and apportion blame. On proven negligence on the part of the security personnel, the Contractor may be asked to pay a token sum at punitive rates as derived by the designated Joint Investigation Team of BHEL and Contractor. The Contractor will lodge FIR/Complaint with Police on behalf of BHEL and take necessary follow up action as required.
- i) To maintain necessary documents as ordered by the competent BHEL official / Construction Manager/ Contractor.
- 34.11. The NATIONAL ELECTRICITY CORPORATION (NEC), Sudan and / or their Consultant M/s. Fichtner may depute their representative for checking and supervision at different stages of work. The contractor shall be required to provide all facilities for inspection of works at no extra cost to BHEL. Any defect in quality of work or deviations from drawings / specifications pointed out during such inspections shall be made good by the contractor in the same way as if pointed out by the BHEL Engineer, without any cost implication to BHEL.
- 34.12 **BHEL-Power Sector (NR) is an ISO 9001-2000, ISO 14001-1996 , OHSAS 18001-1999 and SA-8000 certified company. Quality of work, to customer's satisfaction and system requirements is the essence of these certifications. The contractor in all respects will organize his work, systems, environment, process control documentation, tools, plant, inspection, measuring and testing equipments etc. as per instructions of BHEL engineer.**
- The contractor shall also comply with applicable legislation and regulations with regards to Health, Safety and Environmental aspects (HSE) for minimizing risk arising from occupational health & safety hazards, controlling pollution and wastage.**
- Besides the above, technical clearances from respective statutory bodies for the above shall be obtained by contractor at their cost to meet regulatory/statutory requirements
- 34.13 Tenderer may note that as the place of work is inside the POWER PROJECT and being manned by Security Force of NEC, all necessary system related to entry of men, vehicle & material, safety & security systems, work permit system etc. as applicable will have to be followed by the contractor.

35.0 INSTRUCTIONS TO TENDERERS & QUALIFYING REQUIREMENTS

- 35.1 The party should have the experience of providing porta-cabins and carrying out building construction**

work 'OR' the party should be experienced in one of the two activities and should have a suitable tie-up for the other.

- 35.2 The tenderer should be a Sudanese Company, or any other company having an office in Sudan.**

Suitability of Tenderer will be assessed based on their capability (both technically and financially) of handling the total work including their tie-ups, if any, at the time of techno-commercial evaluation of their bids and in consultation with Customer. Price bids of only those parties will be opened who are found acceptable in totality. It is, therefore, essential that bidders should furnish clear evidence of their capability along with tie-ups, if any, to handle total work. Tender document / all correspondence shall be in English only.

- 35.3 Interested parties should preferably indicate their willingness to participate in tender, through e-mail /Fax. They should also intimate their telephone numbers & addresses along with above message.**

- 35.4 Clarification, if any, required against this tender, should be sent to us through e-mail within 7 days of issue of this NIT, specifically stating the clause nos. of the NIT. The bidders should send their contact details through FAX/e-mail.**

36.0 CONTRACTOR'S SUPERVISION

- 36.1 The Contractor shall either himself supervise the execution of the Contract or shall appoint a competent Engineer / agent approved by BHEL Engineer to act in his stead.
- 36.2 The Contractor shall employ Engineers/ Agents having a 'Degree or Diplomas in Engineering' from a recognised university.
- 36.3 The employment of an Engineer/ Agent as aforesaid shall not be necessary if the Contractor himself is in possession of a recognised technical qualification and is, in the opinion of the BHEL Engineer, capable of receiving instructions of the BHEL Engineer and of executing the work to the satisfaction of the BHEL Engineer.
- 36.4 If the Contractor fails to appoint a suitable Engineer /Agent as aforesaid, the BHEL Engineer shall have full powers to suspend the execution of work and stop payment of any money that may have become due until such date as a suitable Engineer / Agent is appointed and the Contractor shall be held responsible for the delay caused to the work and no extension of time on this account shall be given to him.
- 36.5 The Contractor or his Agent shall be in attendance at the site during all working hours and shall superintend the execution of work with such additional assistance in each grade as the BHEL Engineer may consider necessary.

36.6 The Contractor or his accredited Agent shall attend, whenever required and without making any claim for doing so, either the office of the BHEL Engineer or the work site to receive instructions.

36.7 The BHEL Engineer shall have full powers to instruct the Contractor to arrange for immediate termination of services, in connection with this contract, of any Agent, servant or employee whose continued employment is, in his opinion, undesirable, without assigning any reason.

37.0 SUPERVISORY STAFF AND WORKMEN

37.1 The contractor shall deploy all the experienced skilled, semiskilled and unskilled workmen required for all the works under these specifications. BHEL reserves the right to decide on the suitability of the workers and other personnel who will be deployed by the contractor. BHEL reserves the right to insist on removal of any employee of the contractor at any time, if they find him unsuitable and the contractor shall forthwith remove him.

37.2 The supervisory staff including qualified Engineers deployed by the contractor shall ensure proper out-turn of work and discipline on the part of the labour deployed on the job by the contractor and in general see that the works are carried out in a safe and proper manner and in coordination with other labour and staff deployed directly by BHEL or other contractors of BHEL / BHEL's Client / other agency.

37.3 The work shall be executed under the usual conditions like rain, insufficient space, improper approach roads etc., and effecting major construction work and in conjunction with numerous other operations at site. The contractor and his personnel shall cooperate with other personnel / contractor, coordinating their work with others and proceed in a manner that shall not delay or hinder the progress of work as a whole.

37.4 The contractor's supervisory staff shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. The contractor shall be responsible to ensure that assembly and workmanship conform to the dimensions and tolerances given in the drawings / documents / instructions given by BHEL Engineer from time to time.

37.5 It is the responsibility of the contractor to engage his workmen in shifts or on overtime basis for achieving the targets set by BHEL. **The contractor's finally accepted rates shall include all these contingencies.**

37.6 **During the course of construction, if the progress is found unsatisfactory, or in the opinion of BHEL, if it is found that the skilled workmen like masons, carpenter, bar binder, welder, rig operators, fitters, technicians etc. deployed are not sufficient, BHEL after giving reasonable opportunity to the contractor, will induct on the work the required workmen in addition to contractor's workmen to improve the progress and shall recover additional cost from the contractor's bills as per BHEL norms.**

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- 37.7 If the contractor or his workmen or employees shall break, deface, injure or destroy any part of a building, road kerb, fence, enclosure, water pipes, cables, drains, electric or telephone posts or wire, trees or any other property or to any part of erected components etc., the contractor shall make the same good at his own expense or in default, BHEL may cause the same to be made good by other workmen or by other means and deduct the expenses (of which BHEL's decision will be final) from any money due to the contractor.
- 37.8 The monthwise manpower deployment plan to be submitted as per **format (at Annexure-C to general conditions of contract)** is only to assess the capability as well as understanding of the contractor to execute the work. It shall be the contractor's responsibility to deploy the required manpower, for timely and successful completion of the job, to any extent over and above those indicated in the above deployment plan (including those which are not covered in the plan submitted) without any compensation on this account.
- 37.9 It shall be the responsibility of the Contractor to pay wages and other benefits to its employees/personnel engaged by it as per the agreement with them, and in keeping in line with the local laws in Sudan. The Contractor shall submit to the engineer-in-charge the details/statement of wages paid to its workmen monthly alongwith the bills of succeeding month.
- 37.10 All traveling and transportation expenses shall be borne by the contractor for all his employees, including for employees sent back to their place on account of misconduct, disobedience, improper behavior, sickness, unsatisfactory work or any other reason whatsoever
- 37.11 Contractor shall arrange passports, wherever required, for all his staff and labour. All expenses for all these activities will be borne by the Contractor
- 37.12 The delay in completing various formalities for the deputation of the contractor's personnel shall not absolve the contractor from his obligations under the Contract including completion of the work strictly in accordance with the time schedule.
- 37.13 Employment of Labour, Working Time.
- a) The Contractor shall, in all dealings with persons in his employment, have due regard to all recognised festivals, days of rest/weekly off, and religious or other customs in Sudan and shall make special arrangements whenever the exigencies of the construction program demand that work shall proceed during such festivals and days of rest
 - b) The Contractor shall plan and schedule the activities on site such that they happen strictly during the specified working hours
 - c) The Contractor shall submit a request to BHEL for issue of an identity card to each and every person employed at the Site by him along with passport size photographs and other documents as may be required for the purpose
 - d) The Contractor shall not otherwise than in accordance with Sudanese State Laws import, sell, give, barter, or otherwise dispose of any alcoholic liquor or drugs or any arms or ammunition to any person or persons whatsoever, nor permit or suffer any such importation, sale, gift, barter, or other disposal by his employees

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- e) No person will be allowed to enter the project premises without an identity card. All identity cards will be surrendered by the Contractor to BHEL in respect of each person on completion of assignment of such person
- f) The Contractor shall deliver to BHEL before 10:00 hrs on each first working day of the week; a report in detail, in such form as BHEL or its Customer (M/s NEC) may prescribe, showing the supervisory staff and the numbers of the several classes of labour, from time to time employed by the Contractor on the Site
- g) The Contractor shall at all times take all requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst the labourers and others employed by him for the purpose of or in connection with the Contract and for the preservation of the peace and the protection of the inhabitants and the security of property on or in the neighbourhood of the Site
- h) The Contractor shall in collaboration with, and to the requirements of, any duly constituted medical or sanitary authority, ensure that suitable arrangements are made on the Site for the maintenance of health, the prevention and overcoming of epidemics, and for adequate first-aid, welfare, and hygiene services
- i) The Contractor, his partners, foreign workers and employees and their families shall not be involved by any manner in any political activity during their stay in the Employer's country

38.0 TOOLS AND PLANTS

- 38.1 All the T&Ps required for successful and timely execution of the work covered within the scope of this tender, shall be arranged and provided by the contractor at his own cost in working condition. In the event of the failure of contractor to bring necessary and sufficient T&Ps, BHEL will be at liberty to arrange the same at the risk and cost of contractor including transportation cost of same from any of BHEL site/place and hire charges as applicable shall be deducted from contractor's bill. Decision of BHEL in this regard shall be final and binding on contractor.
- 38.2 All distribution boards, connecting cables / welding cables, wire ropes, hoses etc. including temporary air / water/ electrical connections etc. shall have to be arranged by the contractor at his own cost.
- 38.3 Consolidation of ground and arrangement of sleepers / sand bag filling etc. for safe operation / movement of equipment including cranes / trailers etc. shall be the responsibility of the contractor at his cost.
- 38.4 Contractor shall ensure deployment of serviced and healthy T&Ps including cranes, lifting tackles, wire ropes, Manila ropes, winches and slings etc. History card and maintenance records for major T&Ps will be maintained by the contractor and will be made available to BHEL Engineer for inspection as and when required. Identification for such T&Ps will be done as per BHEL Engineer's advice.
- 38.5 BHEL shall have lien on all T&PS & other equipment of the Contractor brought to the Site for the purpose of installation. BHEL shall continue to hold the lien on all such items throughout the period of Contract. No material brought to the Site shall be removed from the Site by the Contractor and/or his Sub-contractors without the prior written approval of the Engineer.

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- 38.6 The monthwise T&P deployment plan to be submitted as per format **(at Annexure-D to General Conditions of contract)** is only to assess the capability as well as understanding of the contractor to execute the work. It shall be the contractor's responsibility to deploy the required T&P, for timely and successful completion of the job, to any extent over and above those indicated in the above deployment plan (including those which are not covered in the plan submitted) without any compensation on this account.

39.0 MATERIALS

- 39.1 The contractor shall, at his own expenses (Inclusive of all Taxes / duties), provide all materials required for the work.
- 39.2 All stores and materials to be provided by the Contractor shall be of the best kind in conformity with the specifications laid down in the contract or as per relevant Sudanese / Indian / International standard and the Contractor shall, if requested by the BHEL Engineer, furnish proof to the satisfaction of BHEL Engineer that the materials so comply.
- 39.3 The Contractor shall, at his own expense and without delay, supply to the BHEL Engineer samples of materials proposed to use in the works. The BHEL Engineer shall within seven days of supply of samples or within such further period as he may require will intimate to the Contractor in writing, whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the BHEL Engineer for his approval fresh samples complying with the specifications laid down in the Contract. Any delay in approval of samples (original or fresh ones) shall not make the contractor eligible for any compensation.
- 39.4 The BHEL Engineer shall have full powers for removal of any or all of the materials brought to site by the Contractor which are not in accordance with the Contract specifications or do not conform in character or quality to samples approved by him. In case of default on the part of the Contractor in removing rejected materials, the Engineer shall be at liberty to have them removed by other means. The BHEL Engineer shall have full powers to procure other proper material to be substituted for rejected materials and in the event of the Contractor refusing to comply; he may cause the same to be supplied by other means. All costs, which may attend upon such removal and / or substitution, shall be borne by the Contractor.
- 39.5 The Contractor shall indemnify BHEL, its representatives or employees against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part thereof included in the Contract. In the event of any claim being made or action being brought against BHEL or any agent, servant or employee of BHEL in respect of any such matters as aforesaid, the Contractor shall immediately be notified thereof, provided that such indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by BHEL but the Contractor shall pay any royalties or other charges payable in respect of any such use, the amount so paid being reimbursed to the Contractor only if the use was the result of any drawings / specifications issued after submission of the tender.

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- 39.6 The BHEL Engineer shall be entitled to have tests carried out as specified in the Contract for any materials supplied by the Contractor other than those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Engineer may require for the purpose. If no tests are specified in the Contract, and the Engineer requires such tests, the Contractor shall provide all facilities required for the purpose and the charges for these tests shall be borne by the Contractor only. The cost of materials consumed in tests shall be borne by the Contractor in all cases except when otherwise provided.
- 39.7 In addition, the Contractor shall perform / submit at his own cost such tests / samples as may be required by the BHEL Engineer out of the materials used by the company except for the costs of materials used in such tests/ samples.
- 39.8 After acceptance of the Contract, if Contractor desires BHEL to supply any other materials, such material may be supplied by BHEL, if available, at rates to be fixed by the BHEL Engineer along with prevailing departmental charges (current rate of 30%). BHEL reserve the right not to issue any material. The non-issue of such material will not entitle the Contractor for any compensation whatsoever either in time or in cost.
- 39.9 Material required for the works; whether brought by the Contractor or supplied by BHEL, shall be stored by the Contractor only at places approved by the Engineer. Storage and safe custody of material shall be the responsibility of the contractor.
- 39.10 BHEL's officials concerned with the Contract shall be entitled at any time to inspect and examine any materials intended to be used in or on the works, either on the Site or at factory or workshop or other place(s) where such materials are assembled, fabricated, manufactured or at any place (s) where these are lying or from which these are being obtained and the Contractor shall give such facilities as may be required for such inspection and examination.
- 39.11 All materials brought to the Site shall become and remain the property of BHEL and shall not be removed off the Site without the prior written approval of the Engineer. But whenever the Works are finally completed and advance, if any, in respect of any such material is fully recovered, the Contractor shall at his own expense forthwith remove from the Site all material originally supplied by him except that to be handed over to NEC or as directed by BHEL Engineer and upon such removal, the same shall re-vest in and become the property of the Contractor.
- 39.12 It shall be the responsibility of the contractor to obtain prior approval of BHEL, regarding suppliers, type of electrodes etc. before procurement of welding electrodes / TIG wires. On receipt of electrodes at site these shall be subjected to inspection and approval by BHEL. The contractor shall inform BHEL details regarding type of electrodes, batch No., date of expiry etc. and produce test certificate for each lot / batch with correlation of batch/ lot no. with respective test certificate. No electrode would be allowed to use without valid test certificate.
- 39.13 **The Contractor shall be responsible for the transport of their tools, plant and equipment and construction materials, from their place of origin to the Site and more precisely to their exact point of utilisation at the Site at their own cost.**

39.14 The Contractor shall take care that if the machinery is disassembled into components, the weight and size of which are in line with actual transport possibilities

39.15 Within the limits imposed by law, the Contractor shall be entitled to utilise all the roads and other communication facilities existing in the country, to the same extent as any other user. BHEL and its Customer(NEC) shall assist the Contractor for obtaining licenses, permits, etc. from all the local authorities. However, all the expenditure on this account shall be borne by the Contractor

40.0 EXECUTION OF WORK

40.1 **The work shall be executed in a workman like manner and to the entire satisfaction of the Engineer and as per technical specification issued with tender, National / International codes, as applicable. In case of conflict, the decision of the BHEL Engineer shall be final & binding.**

40.2 The BHEL Engineer will communicate or confirm his instructions to the Contractor in respect of the execution of the work in a "Work Site Order Book" maintained at his office and the Contractor shall visit this office daily and shall confirm receipt of such instructions by signing the relevant entries in this book. Such entries will rank as order or notices in writing within the intent and meaning of these conditions.

40.4 SETTING OUT

40.4.1 All the works shall be set out to the true lines, grades and elevation indicated on the drawing. The contractor shall be responsible to locate and set out the works. Only one grid reference line and benchmark shall be made available for setting out the works under the contract. This reference lines shall be used as datum for the works under the contract and the contractor has to establish for his work area at available points horizontal and vertical control points. The contractor shall inform BHEL well in advance of the times & places at which he wishes to do work in the area allotted to him so that suitable datum points established by him are checked by BHEL / Customer to enable the contractor to proceed with the works. Any work done without being properly located may be removed and / or dismantled by BHEL / Customer at contractor's expenses.

40.4.2 The contractor shall at his own expense take all proper and responsible precautions to preserve and maintain these datum marks to its true position In the event of these marks being disturbed or obliterated by accident or due to any other cause whatsoever, the same may be deemed necessary placed by BHEL / Customer at contractor's expenses.

40.5 SITE DRAINAGE

40.5.1 All water including sub-soil water which may accumulate on the Site during the progress of the works or in trenches and excavations shall be removed by the contractor from the Site to the satisfaction of the Engineer. It will also be responsibility of the contractor to de-water all the foundation pits, trenches with suitable de-watering methods like, pumping out, well point system etc. considering the depth of water table at plant site. **All such expenditure on de-watering shall be deemed to be included in quoted rates.**

40.6 INSPECTION AND STAGE APPROVAL OF THE WORK

- 40.6.1 The owner or his duly authorised representative shall have at all reasonable times access to the contractor's premises or works and shall have the power to inspect drawings or any portion of the work, examine the materials and workmanship and shall have the authority to reject any work. This would be implemented through joint inspection by the representative of the owner and BHEL and in the form of joint protocols without any extra claims and loss of time and amount.
- 40.6.2 All work embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice in writing to the Engineer when each stage is ready. In default of such notice being received, the Engineer shall be entitled to approve the quality and extent thereof at any time he may choose and in the event of any dispute; the decision of the Engineer thereon shall be final and conclusive.

40.7 UNCOVERING AND MAKING GOOD

- 40.7.1 The Contractor shall uncover any part of the Works and / or make openings in or through the same as the Engineer may from time to time direct for his verification and shall reinstate and make good such part to the satisfaction of the Engineer. If any such part has been covered up or put out of view after being approved by the Engineer and is subsequently found on uncovering to be executed in accordance with the Contract, the expenses of uncovering and / or making opening in or through, reinstating and making good the same shall be borne by BHEL. In any other case all such expenses shall be borne by the Contractor.

40.8 DISCREPANCIES AND ADJUSTMENT OF ERRORS

- 40.8.1 The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawings and figures dimensions in preference to scale and special conditions in preference to general conditions.
- 40.8.2 In case of discrepancies between schedule of quantities, the specification and / or the drawings, the following order of preference shall be observed.

- (a) Description in Bill of quantities (BOQ).
- (b) Special conditions of contract
- (c) Drawings
- (d) Technical Specifications
- (e) General conditions of contract

If there are varying or conflicting provisions made in any one document forming part of the contract, the BHEL Engineer shall be the deciding authority with regard to the document.

- 40.8.3 Any error in description, quantity in schedule of quantities or any omission therefrom shall not vitiate the contract or absolve the contractor from the responsibility of the

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whole or any part of the works comprised therein according to the drawings and specifications or from any of his obligations under the contract.

- 40.8.4 If on check there are found to be differences between the rates given by the contractor in words and figures or in the amount worked out by him in the schedule of quantities and general summary, the same shall be adjusted in accordance with the following rules:
- (a) In the event of discrepancies between description in words and figures quoted by a tenderer, the lesser of the two will be treated as valid rate.
 - (b) In the event of an error occurring in the amount column of schedule of quantities as a result of wrong extension of the unit rate and quantity, the unit rate shall be regarded as firm and extension shall be amended on the basis of the rate.
 - (c) All errors in totaling in the amount column and in carrying forward totals shall be corrected.
 - (d) The totals of various sections of bill of quantities amended shall be carried over to the general summary and the tendered sum amended accordingly. The tendered sum so altered shall, for the purpose of tender, be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer. Any rounding of quantities or in sections of bill of quantities or in general summary, by the tenderer, shall be ignored.
- 40.8.5 If neither drawing nor specification contain any mention of minor details of construction which in the opinion of the Engineer whose decision shall be final and conclusive, are reasonable and obviously and fairly intended for satisfactory completion of work, such details shall be provided by the contractor without any extra cost, as if they were specially mentioned and shall be deemed to be included in the scope.

40.9 HEALTH, SAFETY & ENVIRONMENT (HSE).

- 40.9.1 Besides provision with regard to SAFETY under Clause 27 of GCC, Contractor shall note that Explosives shall not be used on the work by contractor except with permission in writing of the ENGINEER and in manner and to the extent to which he has prescribed. Where explosives are used, the same shall be stored in a special magazine to be provided by and at the cost of the contractor who shall be liable for all damages, losses and injury to any person or property and shall be responsible for complying with all statutory obligations in these respect. Further, the contractor is required to provide proper Safety Net System wherever the hazard of fall from height is present as per instructions of BHEL Engineer at site. The safety net shall be duly tested and shall be of ISI mark and the nets shall be located as per site requirement to arrest or to reduce the consequences of a possible fall of persons working at different heights.
- 40.9.2 **The contractor will be responsible for Health, Safety & Environment management at site for the construction activities to be carried out by them in accordance with requirements given under section I(a) of GCC of this document. The contractor shall continuously take special care to ensure the safety and prevention of human and equipment accidents and maintain good**

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sanitary conditions in and around the site. All the construction work and plant operation must be carried out in the safest possible manner. The Engineer reserves the right to stop any process which, in the Engineer's opinion, is being performed dangerously. In this case the contractor must immediately supply the requisite safety precautions and any delays attributed to the work stoppage shall not affect the agreed contractual finishing dates.

The contractor shall appoint full-time Qualified Safety Officers who shall have full authority to ensure that all necessary safety precautions are observed by the Contractor's employees and sub-contractors. These appointees shall have full responsibility for the safety of all personnel within the contractor's area of the works.

Some of the common safety rules to be followed during working are as follows :-

- No outsider is allowed to enter construction area without permission.
- No body is allowed to enter at construction site without Safety Shoe.
- Never enter work area without Safety helmet & chin strap in place.
- No climbing/working allowed without proper safety belt above 2 m. height.
- Do not exceed the speed limit 25 Kmph within premises.
- No debris obstacles allowed on the roads & passages.
- All accidents/incidents to be reported to site Incharge.
- Do not walk on pipelines or false ceiling.
- Maintain good Housekeeping at work site.
- No photography/ Videography allowed without permission
- Infrastructure to be developed for carrying out jobs properly in a safe manner.
- All Site supervisors & engineers (including subcontractor's) must be imparted structured training on construction safety before start of the job & record to be maintained.
- Availability of qualified & trained Site Engineer at site during all working hours.
- Site Safety training to be imparted to all workers & plan to be made to cover every worker.
- Daily Tools box talk (5-15 minutes) by supervisor prior to commencement of any job.
- All accident / incidents(Near Miss) to be reported & investigated and records to be maintained.(formats & procedure should be finalized)
- Daily Safety Checking by Each Site Engineer along with Safety engineer.
- Weekly co-ordination meeting of all Safety engineers with BHEL safety officer.
- Monthly safety meeting with Site In-charges.
- Reports: Weekly/monthly/annual HSE report format should be finalized.
- All Safety equipment must be of Sudanese/Indian/International Standard & checked by Safety officer before use.
- Tag system for erection & use of scaffoldings.
- Bamboo/wooden Scaffolding material not allowed.
- Good House keeping. Separate waste bins to be used for flammable & non flammable material.
- Safety awareness programs for workers by display of boards, posters, competitions, talks etc.
- Deployment of Safety Supervisors for every 250 workers and part there of at work site.

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- Display of List of First Aid trained persons.
- Testing certificates for lifting tools & tackle and inspection at regular intervals, besides thorough inspection prior using the same.
- Provision & maintenance of fire extinguishers at construction site & material stores.
- Display of emergency telephone numbers at various locations.
- For work in confined space use 24 V lamp fitting & use tools with air motors or electric tools with max. 24 V.
- For confined space entry Gas test must be done before & at regular intervals.
- Checking & tag of equipment like grinding machine, welding machine, gas cutting set etc. by supervisors before use.

40.9.3 Contractor shall arrange for following provisions of HSE

1. Contractor has to maintain contact with local hospital having scanning & other modern medical facilities required during emergency.
2. Contractor has to ensure pre employment medical check for all staff & workers.
3. The Contractor shall provide and maintain proper sanitary facilities including Toilets/Urinals and drinking water at site for the use of workers and ensure that workers make use of them for maintaining cleanliness and health environment.
4. Contractor has to ensure that adequate First Aid facilities with trained nurse & ambulance are available at work site for emergency purpose. This emergency set-up should include, but not limited to, following
 - Male nurse (in shifts)
 - Oxygen set up
 - Breathing apparatus
 - Eye wash facility
 - Stretcher
 - Trauma blanket
 - Medicines

The Contractor shall arrange and maintain ambulance at site for a period of around three months time from mobilisation (till the ambulance being provided by other contractors is stationed at site) for subject work. This emergency facility set up including ambulance, male nurse etc. will be shared by BHEL and its other contractors working at same project at no extra cost to BHEL and its sub-contractors. After this period, ambulance arranged, by BHEL or its contractor, at work site for emergency purpose, can be utilized, free of cost, by contractor in case of emergency.

40.9.4. The contractor shall comply with following towards Social Accountability:

- (a) The contractor shall not employ any employee less than 15 years of age in pursuant to ILO convention. If any child labour were found to have been engaged ,the Contractor shall be levied with expenses of bearing his education expenditure which will include stipend to substantiate appropriate education or

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employ any other member of family enabling to bear the child education expenditure.

(b) The Contractor shall abide by UN convention w.r.t Human Rights and shall be liable for Discrimination /Corporal Punishment for failure in meeting with relevant requirements.

(c) The Contractor shall abide the requirement of Contract Labour of Sudan.

(d) The Contractor shall abide by the statutory requirement of Minimum Wages & payment of Wages Act prevailing in Sudan.

(e) The Contractor shall arrange potable drinking water to its employees & workers at site in proximity to work place.

40.9.5 Additional safety requirement of BHEL's Customer and consultant (M/S NEC & M/s FICHTNER), if any, shall be provided by the Contractor without any extra cost. **Non adherence of safety requirements will attract strict action and penalty as decided by BHEL Engineer and BHEL's decision shall be binding on the Contractor and its workers.**

40.10 NUISANCE

40.10.1 The Contractor shall not at any time do, cause or permit any nuisance on Site or do anything which shall cause unnecessary disturbance or inconvenience to owners, tenants or occupiers of other properties near the Site and to the public generally.

40.11 MATERIAL OBTAINED FROM EXCAVATION

40.11.1 Materials of any kind obtained from excavation on the Site shall remain the property of BHEL / its client and shall be disposed of as the Engineer may direct, at no extra cost.

40.12 TREASURE, TROVE, FOSSILS etc.

40.12.1 All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the site shall be the absolute property of BHEL / BHEL's client and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing, shall immediately upon discovery thereof and before removal acquaint the Engineer with such discovery and carryout the Engineer's directions as to the disposal of the same.

40.13 PROTECTION OF WORKS

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- 40.13.1 Trees designated by the Engineer shall be protected from damage during the course of the Works and earth level within 1 meter of each such tree shall not be charged. Where necessary, such trees shall be protected by providing temporary fencing.
- 40.13.2 The contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Engineer for the protection of the Works or for the safety and convenience of those employed on the Works or the public.
- 40.13.3 The contractor shall have total responsibility for protecting his works till it is finally taken over by the Engineer. No claim will be entertained by the Engineer, for any damage or loss to the contractor's works and the contractor shall be responsible for the complete restoration of the damaged works to its original condition to comply with the specifications and drawings. Should any such damage to the contractor's works occur because of other party not under his supervision or control, the contractor shall make his claim directly with the party concern. The contractor shall not cause any delay in the repair of such damaged works because of any delay in the resolution of such disputes. The contractor shall proceed to repair the work immediately and no cause thereof will be assigned pending resolution of such disputes.

40.14 RECORD FOR MATERIALS CONSUMED

- 40.14.1 The contractor shall maintain and furnish to the Engineer the record of materials consumed in the works for each activity. The statement showing the theoretical vis-à-vis actual consumption of specified materials, such as structural /reinforcement steel, cement, bitumen, lead, paint etc., shall be enclosed along with the running bills submitted by the contractor. Contractor has also to furnish the test results of the concrete cubes, bricks, stone aggregates and other materials used in the work as per IS specifications.

40.15 PROTECTION OF EMBEDMENTS, BOLTS ETC.

- 40.15.1 The contractor shall ensure proper protection to the satisfaction of the Engineer, of all bolts, inserts, embedment etc. from weather etc/ by greasing, rapping them with gunny bags or canvas or by any other means as directed by Engineer. Cost of such protections shall be deemed to be included in the rates quoted for the item.

40.16 CLEARANCE OF SITE AND REPAIRS.

- 40.16.1 The Contractor shall at all times keep the Site free from obstruction and shall at any time, if or if not directed by the BHEL / its Customer(M/s NEC) & their consultant, store or dispose of any constructional plant and surplus materials and clear away and remove from the Site any wreckage or rubbish or Temporary Works no longer required. Contractor has to clear the site / area where mechanical and electrical erection work is to be commenced / or in progress. The contractor shall remove construction materials and equipment lying in the vicinity and causing obstruction in the erection work within 24 hrs. notice. In case, he fails to clear the site, this will be done at his risk & cost by BHEL. On the completion of the Works, the Contractor shall, except as otherwise specifically provided, clear away and remove from the Site and around Site all construction plant, Temporary Works, surplus materials, wreckage and rubbish of every kind, and shall reinstate and leave

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the whole of the Site and the Works clear and in a workmanlike condition to the satisfaction of BHEL. If the Contractor fails to remove any Constructional Plant within a reasonable time, then BHEL or its Customer (M/S NEC) may:

- a) sell any such plant & materials which are the property of the Contractor;
- b) return any such plant & materials which are not the property of the Contractor to the Employer thereof at the Contractor's expense;
- c) and, after deducting from any proceeds of sale the costs, charges and expenses in connection with such sale or return, shall pay the balance, if any, to the Contractor, but to the extent that the proceeds of any sale are insufficient to meet all such costs, charges and expenses, the excess shall be a debt due from the Contractor to BHEL and shall be reimbursed by the Contractor.

40.17 QUALITY ASSURANCE

- 40.17.1 The contractor has to establish / arrange at site the field testing facilities for testing of civil construction materials and concrete cubes for ensuring the proper quality, grade and strength of the materials used in the construction in line with approved field quality check list of BHEL/ its client. Contractor has to submit detailed report for testing of all material used etc. All testing shall be done as per specifications/ BHEL's quality plan. If further test is required by the engineer to be carried from outside laboratory, the cost of the same shall be borne by the contractor.

40.18 COMPLETION OF WORK

- 40.18.1 The works shall be completed to the entire satisfaction of the Engineer and in accordance with the completion schedule as specified in the Contract, and all unused stores and materials, tools, plant, equipment, temporary buildings, site office, labour hutments and other things shall be removed and the site and work cleared of rubbish and all waste materials and delivered up clean and tidy to the satisfaction of the Engineer at the Contractor's expenses.
- 40.18.2 BHEL shall have power to take over from the Contractor from time to time such sections of the work as have been completed to the satisfaction of the Engineer. Such work however shall not be treated as have been completed until the extra works are executed to the satisfaction of Engineer.

40.19 RECORDS AND MEASUREMENTS

- 40.19.1 All items having a financial value shall be entered in BHEL measurement Book so that a complete record is obtained of all works performed under the Contract.
- 40.19.2 Work, which fails to be measured in details, shall be measured physically without reference to any local custom that may obtain excepting where it may otherwise be directed in the tender documents. The measurements shall be taken jointly by any person duly authorised on the part of BHEL and by the Contractor.

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- 40.19.3 The Engineer shall give adequate notice in writing to the Contractor of appointment for measurement.
- 40.19.4 The Contractor shall, without extra charge, provide assistance with appliances and other things necessary for measurement and shall bear all the cost of measurement of his work.
- 40.19.5 Measurement shall be entered in BHEL Measurement Book and signed and dated by both parties on completion of measurement. If the Contractor objects to any of the measurements recorded on the behalf of BHEL, a note to that effect will be made in BHEL Measurement Book or against the item or items objected to and such note shall be signed and dated by both the parties engaged in taking the measurement.
- 40.19.6 If, as a result of such objection, it becomes necessary to re-measure the work wholly or in part the expense of such re-measurement shall be borne by the contractor.
- 40.19.7 If the Contractor's representative fails to attend when required, the Engineer shall have power to proceed by himself to take measurements and in that case these measurements shall be accepted by the Contractor as final.
- 40.19.8 The Contractor shall, once in every month, submit to the Engineer details of his claims for the work done by him upto and including the previous month which are not covered by this Contract Agreement in any of the following respects:
- (a) Deviation from the items and Specifications provided in the tender.
 - (b) Extra items/new items of work.
 - (c) Quantities in excess of those provided in the Contract Schedule.
 - (d) Items in respect of which rates have not been settled.

40.19.10 METHOD OF MEASUREMENT

- 40.19.10.1 Method of measurements if not specified in the tender, shall be as per relevant Standards / Codes / International standards.

40.19.11 DEVIATION

- 40.19.11.1 The Contractor shall not make any alteration in, addition to or omission from the work as described in the tender documents except in pursuance of the written instructions of the Engineer. No such deviation from the work described in the tender documents shall be valid unless the same has been specifically confirmed and accepted by the Engineer in writing and incorporated in the Contract.
- 40.19.11.2 The Engineer may deviate, either by way of addition or deduction, from the work so described, provided that the Contract sum be not thereby varied on the whole by more than the percentage set out in the tender documents. The value of all additions and deductions shall be added to or deducted from the Contract sum. (Whenever the Engineer intends to exercise such a right his intentions shall specify the deviations which are to be made, the lumpsum assessment or the proposed basis of payment, the extra time allowed, if any, and the date for completion of the (entire contract). Any objection by the contractor to any matter concerning the order shall be notified by him in writing to the Engineer within seven days from the

date of such order, but under no circumstances shall the work be stopped (unless so ordered by the Engineer) owing to differences or controversy that may arise from such an objection. In the absence of such a notification of objection by the Contractor, he will be deemed to have accepted the order and the conditions stated therein.

40.19.12. VALUATION OF DEVIATIONS

Rates for deviated items or new items of work shall be as follows:

- 40.19.12..1 If the rates for the additional, altered or substituted work are specified in the Contract for the work, the Contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the Contract for the work
- 40.19.12..2 If the rates for the additional, altered or substituted work are not specifically provided in the Contract for the work, the rates will be derived from the rates for a similar class of work as are specified in the Contract for the work.
- 40.19.12..3 If the rates for the altered, additional or substituted work cannot be determined in the manner specified in above clauses the rate for such part or parts will be determined by the Engineer on the basis of prevailing market rates when the work was done and the decision given in this behalf shall be final and binding on the Contractor.
- 40.19.12.4 If the rates for the altered, additional or substituted work cannot be determined in the manner specified in above clauses, then the contractor shall within 7 days of the date of receipt of order to carry out the work inform the Engineer of the rate at which it is his intention or charge for such class of work, supported by analysis of the rate or rates claimed, and the Engineer shall determine the rate or rates on the basis of prevailing market rates and pay the Contractor accordingly. However, the Engineer, by notice in writing, will be at liberty to cancel his order to carryout such class of work and arrange to carry it out in such manner as he may consider advisable. But under no circumstance the Contractor shall suspend the work on the plea of non-settlement of rates falling under the clause or claim any compensation on that account. Elements of profit, overheads, supervision and establishment charges will be taken as 15% over direct cost

41.0 COMPLIANCE TO REGULATIONS AND BYELAWS

- 41.1 The Contractor shall conform to the provisions of any statute relating to the work and regulations and bylaws of any local authority and of any water and lighting Companies or Undertaking with whose system the work is proposed to be connected. He shall, before making any variation from the drawings or the specifications that may be necessitated for such connections give the Engineer, notice specifying the variation proposed to be made and the reasons therefore and shall not carryout any such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statute, regulations or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof. The Contract shall be governed by the applicable Laws of Sudan Govt. and the bidders to ensure considering latest Sudanese Laws before quoting. If during Contract execution there may be any Change in such Law which might cause

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additional or reduced cost to the Contractor in the execution of the works, the same shall be borne by the contractor.

41.2 The Contractor shall ensure conformance in all respects with the provisions of all state and local laws, regulations or other laws in force in Sudan or elsewhere including all regulations and by-laws of any local or other duly constituted authority within Sudan or elsewhere which may be applicable to the performance of the Contract and the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works or any Temporary Works (which are herein referred to as "Laws"), and shall give all notices and pay all fees required to be given or paid thereby and shall keep BHEL and/or its Customer (NEC) indemnified against all penalties and liability of any kind for breach of any of the same

41.3 The Contractor shall comply with all applicable Sudan Government's safety and sanitary laws, transportation rules, regulations and ordinances, as well as the established safety rules and practices of BHEL's Customer (NEC). The Contractor shall also provide insurance cover for his workmen throughout the contract period, under prevailing local Laws.

42.0 FACILITIES TO BE PROVIDED BY BHEL / CONTRACTOR

42.1 The Contractor shall during the progress of the work, provide, erect and maintain at his own expenses all necessary temporary workshops, stores, consumables, offices, etc. required for the proper and efficient execution of the work. The planning, setting and erection of these buildings shall have the approval of the Engineer and the Contractor shall at all times keep them clean and tidy and clean and keep sanitary condition clean to the entire satisfaction of the Engineer. BHEL shall provide free of charge limited open space for office & storage shed, as and where made available by BHEL's customer. It is the responsibility of the contractor to construct sheds, provide all utilities and dismantle and clear the site after completion of work or as and when required, as a part of his scope of work. On completion of work or as and when required by BHEL, all the temporary buildings, structures, pipe lines, cables etc. shall be dismantled and leveled and debris shall be removed as per instruction of BHEL by the contractor at his cost. In the event of his failure to do so, same will be got done by the Engineer and expenses incurred shall be recovered from the contractor along with prevailing overhead charges.. The decision of BHEL Engineer in this regard shall be final

42.2 Contractor shall be responsible for providing all necessary facilities like residential accommodation, transport, electricity, water, medical facilities etc. as required under various labour laws and statutory rules and regulations framed there under to the personnel employed by him. Land for construction of temporary accommodation for the contractor's personnel including labour colony shall be provided by BHEL free of cost. This land shall be within/near plant boundary wall of the power station. **The contractor shall at his own cost, provide temporary housing or camp accommodation for his site personnel, including sanitary and canteen facilities etc.** The contractor shall submit for prior approval of BHEL, plans for all such accommodation he proposes to erect before any construction commences. The contractor shall be responsible for all costs associated with any temporary housing or camp accommodation provided by him

42.3 All temporary housing and camp accommodation shall be run and maintained by the Contractor in efficient condition in accordance with the laws in force in Sudan

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- 42.4 The sanitary facilities shall be kept in clean and orderly conditions to the approval of BHEL and public health authorities of Sudan. The Contractor shall comply with sanitary laws, regulations and ordinances of Sudan Govt.
- 42.5 **BHEL shall provide potable water and Power supply at 240 V (for execution of work under this contract), 1 phase for office & labour colony free of charge at one point . Further distribution will be done by the Contractor at their own cost.**
- 42.6 The Contractor shall be responsible for providing adequate transport to and from the site for his own and his personnel who may be brought in daily from their living quarters or housing areas
- 42.7 The Contractor shall be fully responsible for the death or injury to any person employed by him for the purposes of or in connection with the execution of the Contract.
- 42.8 Following points should be strictly adhered to by the contractor while drawing construction power supply from Distribution Board
- (a) All electrical installations should be as per Sudan / International Electricity rules.
 - (b) All distribution Boards installed by the contractor should be constructed with fire proof materials viz. steel frames, bakelite sheets etc.
 - (c) Connection for single phase should be taken from phase and neutral. No where the connection should be taken with earth as neutral
 - (d) All electrical connections should be made through connectors, nuts and bolts, switches, plug and sockets. Loose connections or hooking up of wires shall not be permitted.
 - (e) Contractor have to make their own earthing arrangement for their equipment / DB earthing. Earthing connection have to be done with copper conductor and copper / brass clamps with BHEL's prior permission.
 - (f) All electrical equipment / tools and plants should be properly earthed. DBs to be earthed diagonally opposite at two points.
 - (g) Contractor should use "MCCB" and "ELCB" either on incoming or outgoing connections to the DBs.
 - (h) Contractor should ensure that all the CBs / TPNs / Fuses / MCCB / ELCB cables etc. should be of adequate rating/ capacity.
 - (i) For permission of supply connections contractor has to submit a test report of their installations with a single line diagram of connected / proposed loads. Contractor will also submit a report on all electrical connected load by the 7th of every month.
 - (j) ELCB will be tested once in a week or as deemed fit by BHEL Engineer by actually simulating the earth leakage for all installations and the same shall be recorded by BHEL Engineer in the log book to be maintained by the contractor.
 - (k) In case of power cuts / load shedding no compensation for idle labour or extension of time for completion of work will be given to contractor.
- 42.9 Though the contractor will be provided electricity and water free of charges at one point ,the contractor shall however ensure that there is no wastage . Periodical audits will be held to ensure that these resources are being optimally used .In

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case any wastage is observed , BHEL reserves the right to recover any charges /penalty as deemed fit to be decided by BHEL Engineer

- 42.10 BHEL/NEC shall provide areas of land verified by submitting the Land Using Right Certificate necessary to complete the Work, including those areas of work activities for offices, accommodation, temporary access roads, for the extension to the right of way and some other temporary works. BHEL/NEC shall in a timely manner obtain all NEC Permits required for the execution of this contract.

The road/land right for construction machinery will also be obtained by the BHEL/NEC.

43.0 PROGRESS REPORTING

- 43.1 Contractor is required to draw mutually agreed monthly / weekly / daily programme in consultation with BHEL well in advance. Contractor shall ensure achievement of agreed programme and shall also timely arrange additional resources considered necessary at no extra cost to BHEL.
- 43.2 Daily progress review meetings will be held at site during which actual progress during the week / day vis-à-vis scheduled programme shall be discussed for actions to be taken for achieving targets. Contractor for discussions shall also present the programme for subsequent week. The contractor shall constantly update/ revise his work programme to meet the overall requirement. All quality problems shall be discussed during above review meetings. Necessary preventive and corrective action shall be discussed and decided upon in such review meetings and shall be implemented by the contractor in time bound manner so as to eliminate the cause of non-conformities.
- 43.3 The contractor shall submit weekly and monthly progress reports, materials reports, consumables (gases / electrodes) report and other reports as per Performa considered necessary by the Engineer.
- 43.4 The progress report shall indicate the progress achieved against planned, with reasons indicating delays, if any, and shall give the remedial actions which the contractor intends to take to make good the slippage or lost time, so that further works again proceed as per the original programme and the slippage do not accumulate and effect the overall programme.
- 43.5 The daily manpower reports shall clearly indicate the manpower deployed, categorywise specifying also the activities in which they are engaged.

44.0 DRAWING AND DOCUMENTS

- 44.1 The detailed drawings, specifications available with BHEL engineers will form part of this tender specification. These documents will be made available to the contractor during execution of work at site. The contractor will also ensure availability of all drawings / documents at work place.

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- 44.2 Necessary drawings / documents to carry out the construction work will be furnished to the contractor by BHEL on loan which shall be returned to BHEL Engineer at site after completion of work. Contractor shall ensure safe storage and quick retrieval of these documents.
- 44.3 The contractor shall maintain a record of all drawings and documents available with him in a register as per format given by BHEL Engineer. Contractor shall ensure use of pertinent drawings / data / documents and removal of obsolete ones from work place and return to BHEL.
- 44.4 The data furnished in various annexure enclosed with this tender specification are only approximate and for guidance. However, the change in the design and in the quantity may occur as is usual in any such large scale of work.
- 44.5 Should any error or ambiguity be discovered in the specification or information the contractor shall forthwith bring the same to the notice of BHEL before commencement of work. BHEL's interpretation in such cases shall be final and binding on the contractor.
- 44.6 Deviation from design dimensions should not exceed permissible limit. The contractor shall not correct or alter any dimension / details, without specific approval of BHEL.

45.0 PRICE VARIATION AND OVERRUN

- 45.1 The finally accepted rates for scope of work as defined in this tender shall be firm throughout the contract period. NO PRICE VARIATION / COMPENSATION / OVERRUN on account of any increase whatsoever, (irrespective of whether escalation are steep/ unanticipated or not compensated by the above escalation provisions in full towards minimum wages, consumables, coarse / fine aggregates, steel , wood, electrodes, gases or any other item / reason) will be payable during the entire period of execution including extended period, if any

46.0 TAXES & DUTIES

- 46.1 **The bidder shall quote their item rates inclusive of all taxes/duties / levies, with separate breakup of local taxes/duties / levies elements considered (rate / value wise, as applicable) by contractor for each item.**
- 46.2 Taxes as required to be deducted at source as per Local Sudanese Laws / Indian Law (applicable in case of Indian residents only), if any, at prevailing rates shall be deducted on gross invoice value from the running bills unless Exemption Certificate from appropriate Tax Authority is furnished

47.0 CUSTOM DUTY & CUSTOM CLEARANCE

- 47.1 Bidders shall be allowed to avail Custom Duty exemption in respect of following:

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- For items imported for the project and which ultimately become the property of Customer (NEC) / gets consumed in the project
- For items imported for the project on repatriable basis.

Bidders may keep above in mind while quoting their rates.

47.2 CUSTOMS CLEARANCE PROCEDURE

Detailed procedure shall be given to the successful bidder after finalisation of the contract.

48.0 Insurance:

Besides provisions under clause No.29.0 of GCC regarding insurance the following shall also will be applicable. The contractor shall also take care of the same while submitting their offer.

48.1 Insurance for all materials pertaining to the Contractor (Porta Cabins, hard / soft furnishings, office / storage sheds, T&Ps, Construction Materials etc.) during transit, storage, construction & during use by BHEL shall be in his (Contractor's) scope. Contractor shall insure with an insurance company on the completed works, materials, equipment and supplies existent in site of work against theft, fire and damage. The insurance policy shall cover all Contractors' risk during the complete contractual period for the infrastructural facilities being provided under this contract.

48.2 The Contractor shall be responsible for the safety and security of all the Works and shall replace promptly at Site each part of any and all Works which may be lost or damaged or destroyed due to fire, explosion, lightning, earthquake, theft, flood, storm, tempest, aircraft and other aerial devices or articles dropped therefrom, malicious damage, etc. and the actions of the BHEL or its Customer (M/s NEC) in the operation of appliances on behalf of the Contractor in case the contractor do not act from the date of arrival of equipment, plant, materials, machinery, etc. at the Site until Provisional Acceptance Certificate has been issued.

48.3 The Contractor shall repair or replace the Works lost, damaged, or destroyed, within shortest possible time at Site to ensure commissioning and operation of the Works without delay. If the Contractor shall fail to promptly replace or repair the Works damaged as per above clause, the Employer, at his discretion, will get such works repaired or replaced as the case may be and such costs will be reimbursed by the Contractor.

48.4 The Contractor shall repair or replace the Works lost, damaged, or destroyed, without waiting for the settlement of claims from insurance company to ensure smooth availability of all infrastructural facilities.

49.0 PAYMENTS

49.1 The 'Engineer' will certify regarding the actual work executed in the measurement books and bills, which shall be accepted by the contractor in measurement book

49.2 Contractor shall also submit bills for the work completed under the specification, once in a month detailing work done during the month. The format for billing shall be approved by BHEL before raising invoices. Tonnage shall however be calculated on the basis of gross weight of the package

49.3 Subject to any deduction which BHEL may be authorized to make under the contract, the contractor on the certificate of the Engineer at site shall be entitled for payment as explained hereunder.

49.4 **MODE OF PAYMENT:**

- a) Payments shall be made by cheque or bank transfer.
- b) BHEL Engineer shall certify regarding the actual work executed in the measurement books in line with approved billing schedule. The contractor shall submit progressive bills for the works completed in line with approved billing schedule, once in a month. The Contractor shall be paid monthly running bill to a maximum of 95% of the value of the work actually executed on site provided the work has been executed to the satisfaction of the Engineer. The Engineer may after a measured bill allow & certify payment to the contractor on the basis of abstract measurement bill submitted by the contractor. Contractor will also submit the floppy / CD containing abstract & measurement sheets of the bill which will be returned to him after correction for further resubmission of bill. From this amount, recovery as applicable such as advances, security deposit, taxes etc. would be made. The certificate of the Engineer regarding such approval and passing of sums so payable shall be final and conclusive against the contractor.
- c) Any certificate relating to the work done may be modified by any subsequent interim certificates or by the final certificates and no certificate of the Engineer supporting an advance payment shall by itself be conclusive evidence that any work or materials to which it relates are in accordance with the contract.

d) **Currency of payment and Exchange Rate**

Payments shall be made in US Dollars / Sudanese Dinar subject to Bank of Sudan / Reserve Bank of India guidelines. Exchange rate for conversion from Sudanese Dinar to US Dollars will be arrived at based on latest buying rate of US Dollars. These exchange rates shall be as available on the website of Bank Of Sudan (www.bankofsudan.org) on the date of opening of technical bids (Part-I) and will be applicable for the entire period of Contract.

49.5 Terms of Payment:

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- 49.5.1.1 **For items Sl. No. 1, 2 to 4, 7-a and 8 to 13 of BOQ cum Rate schedule.**
The contractor shall be paid monthly running bill to a maximum of 90% of the value of the work actually executed on site provided the work has been executed to the satisfaction of the Engineer. The payment stages will be mutually discussed & agreed upon with the successful bidder. For the purpose of billing, Contractor shall submit billing breakup for approval by BHEL. No payment shall be released in the absence of approved billing breakup. The Engineer may after a measured bill allow & certify payment to the contractor on the basis of abstract measurement bill submitted by the contractor. The certificate of the Engineer regarding such approval and passing of sums so payable shall be final and conclusive against the contractor.
- 49.5.1.2 **For items Sl. No. 1-01 to 1-23, 5-A, (i) to (xiv) under 6-e and 7-b of BOQ cum rate schedule.**
The contractor shall be paid monthly running bill to a maximum of 90% of the rates on receipt/installation /commissioning, as applicable , based on the certification by the Engineer.
- 49.5.1.3 **For items Sl. Nos. 5-B, 6-a to 6-e and 14 to 16 of BOQ cum rate schedule.**
Based on monthly rates finalised against these items, the contractor shall be paid monthly running bills upto a maximum 90% of the value of work actually executed/tactility actually provided as certified by the Engineer.
- 49.5.1.4 Payment as mentioned in clauses 49.5.1.1 to 49.5.1.3 shall be paid after making recoveries which may be due.
- 49.5.1.5 5% of the contract value shall be paid on completion of contract, dismantling of structures & clearing of site area as directed by BHEL.
- 49.5.1.6 Balance 5% of the contract value shall be paid on completion of all works covered under the scope of this tender, within one month of submission and passing of final bill.
NOTE: Payment against Sl. No. 49.5.1.5 & 49.5.1.6 shall be released after working out the contract value based on actual work carried out.

50.0 RATE SCHEDULE

- 50.1. Contractor shall fully understand equipment description and scope of work before quoting. The scope of work and responsibility of the contractor as mentioned under these specifications shall be covered within the quoted rates / price
- 50.2 The tenderer shall quote the rates / Price as per the rate schedule only, in part II price bid (Original). Conditional price bids or price bids with any deviation / clarification etc. are liable to be rejected. No cutting / erasing / over writing shall be done
- 50.3 Contractor's total quoted price, as per quoted rates & quantities indicated in BOQ, will be taken as tentative only. The contractor undertakes to handle actual quantities as per advice of BHEL Engineer and accordingly the final contract price shall be worked out on the basis of quantities actually handled at site and payments will also be regulated for the same. Quantities mentioned in the rate schedules are approximating only and liable for variation due to change of scope of work / variation in schedule of quantities, changes in design etc. The quantities

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indicated against each item may vary to any extent and no compensation will be payable in variation of Individual quantity. However in case of over all variation in Contract value (as indicated in LOI), beyond minus 30%, the contractor will be eligible for compensation as per the following provision:

"The total executed value shall be raised by 10 % subject to the condition that the total value of work executed plus increase as above shall be limited to 70 % of the awarded contract value"

Contractors are requested to take above into account while quoting. The contractor confirms that unit rates quoted above takes care of such variation during execution stage

50.4 Contractor's total quoted price as per rate schedule will be taken as tentative only. The contractor undertakes to supply / install actual quantities against each item as per project requirement and accordingly the final contract price shall be adjusted on the basis of quantities actually erected at site and payments will also be regulated for the same. The contractor confirms that unit rates quoted above takes care of such variation during execution stage

50.6 The rate quoted in price bid cum rate schedules (Part-II) should be inclusive of all taxes, duties, levies etc. as per prevalent laws at Sudan and compliance to all local regulations EXCEPT custom duty and Corporate income tax. The contractor shall not be entitled to claim increase in market price, currency fluctuation, higher cost of living standards or minimum wages. The contractor shall incur the Taxes which are involved later or subsequently under legislation or laws after the effective date of the contract.

51.0 TIME SCHEDULE

51.1 The contractor is required to commence the work within 7 days from the date of issue of letter of intent unless BHEL decides to fix any other later date. However, BHEL Engineer will certify the actual date of start of work after adequate mobilisation of materials, manpower and T&Ps by the contractor.

51.2 **Entire work as detailed in tender specifications shall be completed, in all respect including dismantling / clearing of site after completion of contract, within 40 months from schedule date of start.** The various milestone dates to be achieved are as below

MILE STONES	MONTHS
Release of LOI	Zero Date
Availability of vehicle	within 7 days of Zero Date
One Porta cabin each (BOQ item no 5 a & 5b)	2 nd Month
Balance Porta cabins	4 th Month
Residential camp readiness (Part)	3 rd month
Site Office readiness	4 th Month
One closed & semi closed store readiness	4 th Month
Balance stores readiness	6 th Month

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Based on above time schedule, the contractor shall submit progressively, within one month from Zero date, detailed programme for development of various infrastructural facilities envisaged under this contract. BHEL shall approve all schedules within two weeks after receipt. However, the submission for approval by BHEL of such program shall not relieve the contractor of any of his duties or responsibilities under this contract.

- 51.3** Infrastructural facilities, as covered within the scope of this tender, are likely to be availed progressively and used by BHEL for a tentative period of 40 months from the LOI date. However these facilities may be required by BHEL for a further period of 4 months, as per site requirement for which no compensation shall be payable except for Facilities covered under Item No 5-B, 6-a, 6-b, 6-c, 6-d, 6-e [excluding items (i) to (xiv)] and 14 to 16 of BOQ, which shall be paid as per respective unit rates. All the structures / facilities to be removed under this contract shall be dismantled & site cleared in all respects by the contractor within two months of notice given by BHEL.
- 51.4** **The work under the scope of this contract is deemed to be completed in all respects, only when the contractor has discharged all the responsibilities laid down in the contract. The decision of BHEL on completion date shall be final and binding on the contractor.**

52.0 LIENS

- 52.1** Each Contractor, for himself and for any persons directly or indirectly responsible to him, and for his or their material, equipment and employees; and for all other persons performing any labour or furnishing any labour or material for any/or all of the Work covered by his Contract, will be required to release or waive, to the full extent permitted by law, all mechanical and other liens, for or on account of the Work done or equipment and material furnished hereunder and the improvements or structures herein same may be incorporated, and the land to which they are appurtenant shall at all times be free and clear of all such liens.

53.0 OTHER MISCELLANEOUS CONDITIONS

- 53.1** The Contractor shall be responsible for the transport of the tools and plant and construction equipments for site work from their place of origin to the Site and more precisely to their exact point of utilization at the Site.
- 53.2** Within the limits imposed by law, the Contractor shall be entitled to utilise all the roads and other communication facilities existing in the country, to the same extent as any other user. BHEL and its Customer(NEC) shall assist the Contractor for obtaining licenses, permits, etc. from all the local authorities. However, all the expenditure on this account shall be borne by the Contractor.
- 53.3** The Contractor shall repair or replace the Works lost, damaged, or destroyed, without waiting for the settlement of claims from insurance company to ensure completion in accordance with the Overall Project Schedule.
- 53.4** The Contractor shall be responsible for the safety and security of all the Works and shall replace promptly at Site each part of any and all Works which may be lost or damaged or destroyed due to fire, explosion, lightning, earthquake, theft, flood, storm, tempest, aircraft and other aerial devices or articles dropped therefrom, malicious damage, etc. and the actions of the BHEL or its Customer (M/s NEC) in the operation of appliances on behalf of the Contractor in case the

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contractor do not act from the date of arrival of equipment, plant, materials, machinery, etc. at the Site until Provisional Acceptance Certificate has been issued.

The Contractor shall repair or replace the Works lost, damaged, or destroyed, within shortest possible time at Site to ensure commissioning and operation of the Works without delay. If the Contractor shall fail to promptly replace or repair the Works damaged as per above clause, the Employer, at his discretion, will get such works repaired or replaced as the case may be and such costs will be reimbursed by the Contractor.

53.5 SECURITY DEPOSIT : The contractor shall submit Security Deposit within 15 days from the date of issue of LOI as per clause no. 16.2 of the General Conditions of Contract (GCC). In case the contractor opts to furnish Bank Guarantee as a part of Security Deposit, the BG shall be issued as per the Performa enclosed as per Annexure-H of the GCC and also that the BG should be issued preferably through any of the Member Banks listed on Page No. 34(a) of the GCC;

For BG through any other Nationalized Bank (Not covered in the list of Member Banks of GCC), the discretion of its acceptance shall lie solely with BHEL.

53.8 LIQUIDATED DAMAGES(LD): For delay in completion of work attributable to the contractor, the LD shall be applicable at the rate of ½% of the contract value per week of delay or part thereof limited to a ceiling of 10% of the contract value as mentioned under clause no.25.5 of the GCC of the tender.

53.9 In case of any contradiction between General Conditions of Contract (GCC) and Special Conditions of Contract (SCC), the latter shall prevail.

53.10 The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of pre-qualification evaluation / Techno-commercial bids and **acceptance of customer**. BHEL reserves the right to reject the bidders with unsatisfactory past performance in the execution of a contract. BHEL's decision in this regard shall be final & binding.

53.11 FORCE MAJURE

The term "Force Majeure" means any cause beyond the control of either party, which either party could not foresee and / or reasonably provide against and which prevents either party from performing his duties under the Contract. Force Majeure includes but is not limited to the following:

War, revolution, insurrection, or hostilities (whether declared or not) Riots, civil commotion or civil uprisings (other than among Contractor's employees)

Earthquake, flood, tempest, hurricane, lightning, or any other natural disaster.
Any fire of major proportions, or explosions.

Strike, lockout, or other industrial disturbance other than among Contractor's employees.

If either party to this Contract because of a Force Majeure Event is rendered wholly or partly unable to perform its obligations under this Contract, other than the obligation of that party to make payments of money, that party shall to the extent provided in this Contract, be excused from the performance directly affected by the Force Majeure Event, provided that;

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- (a) The non-performing party, as soon as possible but in no event more than ten (10) business Days after it becomes aware of its inability to perform, shall declare that a Force Majeure Event has occurred and give the other party written notice of the particulars of the occurrence(s), including, without limitation, the nature, cause and date and time of commencement of the occurrence(s), the anticipated scope and duration of any delay, and any date(s) that may be affected thereby. If it is impracticable to specify the length of such delay at the time such notice is delivered, the non-performing party shall provide the other party with periodic (not less frequently than weekly) supplemental notices during the period the Force Majeure Event continues. Such supplemental notices shall keep such other party informed of any change, development, progress or other relevant information concerning the Force Majeure Event.
- (b) The suspension of performance is of no greater scope and of no longer duration than is required by the Force Majeure Event.
- (c) Obligations of either party which arose before the Force Majeure Event causing the suspension of performance are not excused as a result of the Force Majeure Event.
- (d) The non-performing party immediately and continuously uses its best efforts to remedy its inability to perform with all reasonable dispatch.
- (e) When the non-performing party is able to resume performance of its obligations under this Contract, that party shall promptly so notify the other party in writing.
- (f) **During and following the occurrence of any Force Majeure Event, Contractor and Employer each shall use its best efforts to minimize the delay and costs caused by such Force Majeure Event and shall continue actively and in good faith consider the need for and, when appropriate, execute a change order covering such event, which may result in the extension of such Guaranteed Taking-Over Date or / and additional cost**

53.12 The clause Guarantee (Clause 32.0of GCC) is not applicable against