

2.11.2 Based on the monthly reviews jointly signed, the works balance at the end of original contract period less the backlog attributable to the contractor shall be quantified, and the number of months of 'Time extension' required for completion of the same shall be jointly worked out. Within this period of 'Time extension', the contractor is bound to complete the portion of backlog attributable to the contractor. Any further 'Time extension' or 'Time extensions' at the end of the previous extension shall be worked out similarly.

2.11.3 However if any 'Time extension' is granted to the contractor to facilitate continuation of work and completion of contract, due to backlog attributable to the contractor alone, then it shall be without prejudice to the rights of BHEL to impose penalty/LD for the delays attributable to the contractor, in addition to any other actions BHEL may wish to take at the risk and cost of contractor.

2.11.4 A joint programme shall be drawn for the balance amount of work to be completed during the period of 'Time Extension', along with matching resources (with weightages) to be deployed by the contractor as per specified format. Review of the programme and record of shortfall shall be done every month of the 'Time extension' period in the same manner as is done for the regular contract period.

2.11.5 During the period of 'Time extension', contractor shall maintain their resources as per mutually agreed program

2.11.6 At the end of total work completion as certified by BHEL Engineer, and upon analysis of the total delay, the portion of time extensions attributable to (i) Contractor, (ii) Force majeure conditions, and (iii) BHEL, shall be worked out and shall be considered to be exhausted in the same order. The total period of time extensions shall be the sum of (i), (ii) and (iii) above and shall be equal to period between the scheduled date of completion and the actual date of completion of contract. LD shall be imposed/levied for the portion of time extensions attributable to contractor and recoverable from the dues payable to the contractor.

2.12 OVERRUN COMPENSATION (THIS CLAUSE IS NOT APPLICABLE IN BHEL FACTORY & TOWNSHIP PREMISES)

2.12.1 Over Run Compensation (ORC) is payable by way of rate revisions for periods beyond original, contract period subject to the following terms and conditions.

2.12.2 Rates shall be increased by 10% for the first twelve months of one or more extensions beyond original contract period. For the next twelve months of further extensions if any, rates shall be increased as above by 10% over the previous twelve months, and similarly for each subsequent twelve months extension.

2.12.3 Should there be any 'Time extension' for reasons attributable only to the contractor, then the work shall be executed by the contractor at the rates applicable for the period the work was planned

2.12.4 Payment of ORC shall be regulated as follows:

i) Contractor is entitled to Over Run Compensation (ORC) only for the portion of backlog attributable to BHEL.

ii) 50% of the compensation is allocated for deployment of resources agreed as per the joint programme drawn vide 2.11.4. Payment shall however be based on the actual deployment of resources for the month as certified by BHEL, as per weightages assigned therein

iii) 50% of the compensation, is allocated for achieving of planned progress agreed as per the joint programme drawn vide 2.11.4. Payment shall be on pro rata basis for actual achieved quantities

iv) Total Over Run Compensation shall be limited to 10% of the executed contract value as certified in Final Bill. For this purpose executed contract value excludes PVC, ORC, Supplementary/Additional Items and Extra Works done on Man-day rate basis

2.12.5 Contractor shall not be entitled for any Over Run Compensation (ORC) for the portion of backlog attributable to the contractor. Such works shall be executed at the rates applicable for the period the work was planned

2.13 QUANTITY VARIATION

2.13.1 The quoted rates shall remain firm irrespective of any variations in the individual quantities.

2.14 EXTRA WORKS

2.14.1 All rectifications/modifications, revamping, and reworks required for any reasons not attributable to the contractor, or needed due to any change in deviation from drawings and design of equipment, operation/maintenance requirements, mismatching, or due to damages in transit, storage and erection/commissioning, and other allied works which are not very specifically indicated in the drawings, but are found essential for satisfactory completion of the work, will be considered as extra works.

2.14.2 Extra works arising on account of the contractor's fault, irrespective of time consumed in rectification of the damage/loss, will have to be carried out by the contractor free of cost. Under such circumstances, any material and consumable required for this purpose will also have to be arranged by the contractor at his cost.

2.14.3 All the extra work should be carried out by a separately identifiable gang, without affecting routine activities. Daily log sheets in the pro-forma prescribed by BHEL should be maintained and shall be signed by the contractor's representative and BHEL engineer. No claim for extra work will be considered/entertained in the absence of the said supporting documents i.e. daily log sheets. Signing of log sheets by BHEL engineer does not necessarily mean the acceptance of such works as extra works.

2.14.4 BHEL retains the right to award or not to award any of the major repair/rework/modification/rectification/fabrication works to the contractor, at their discretion without assigning any reason for the same

2.14.5 After eligibility of extra works is established and finally accepted by BHEL engineer/designer, payment will be released on competent authority's approval at the following rate.

MAN-HOUR RATE FOR ELIGIBLE EXTRA WORKS: Single composite average labour man-hour rate, including overtime if any, supervision, use of tools and tackles and other site expenses and incidentals, consumables for carrying out any major rework/repairs/rectification/modification/fabrication as certified by site as may arise during the course of erection, testing, commissioning or extra works arising out of transit, storage and erection damages, payment, if found due will be as per applicable minimum wage act

2.14.6 The above composite labour man hour rate towards extra works shall remain firm and not subject to any variation during execution of the work. PVC will not be applicable for extra works. Rate revision, Over Run Charges/compensation etc will not be applicable due to extra works.

2.14.7 Extra Works for Civil Packages shall be regulated as follows

i) Rates for Extra Works arising due to (1) non availability of BOQ (Rate Schedule), OR (2) change in Specifications of materials/works (3) rectification/modification/dismantling & re erecting etc due to no fault of Contractor, shall be in the order of the following:

a) Item rates are to be derived from similar nature of items in the BOQ (Rate Schedule) with applicable escalation derived from All India Consumer Price Index for Whole Sale Commodities.

b) As per applicable updated CPWD-DSR (or latest edition) with applicable escalation derived; Notification issued by the office of CPWD for 'Cost Index' in that Region where the project is being executed,

c) Item rates are to be worked out on the basis of prevailing market rates mutually agreed between BHEL and Contractor, plus 15% towards Contractor's overheads and profit.

ii) PVC and ORC will not applicable be for (i) above.

2.15 SUPPLEMENTARY ITEMS

2.15.1 For NON Civil Works

Supplementary items are items/works required for completion of entire work but not specified in the scope of work. Subject to certification of such items/works as supplementary items by BHEL Engineer, rates shall be derived on the basis of any one of the following on mutual agreement:

i) Based on percentage breakup/rates indicated for similar/nearby items

ii) In case (i) above does not exist, then BHEL/site may derive the percentage breakup/rates to suit the type of work

2.15.2 For Civil Works

i) Rates for Supplementary Works/Additional Works arising out due to additions/alterations in the original scope of works as per contract subject to certification of BHEL Engineer shall be worked out as under:

a) Item rates which are available in existing BOQ (Rate Schedule) shall be operated with applicable escalation derived from All India Consumer Price Index for Whole Sale Commodities

b) Items of works which are not available in existing BOQ shall be operated as an 'Extra Works' and rate shall be derived as per clause no 2.14

ii) Execution of Supplementary Works/Additional Works through the Contractor shall be at the sole discretion of BHEL, and shall be considered as part of executed contract value for the purpose of Quantity Variation as per clause 2.13

iii) BHEL Engineer's decision regarding fixing the rate as above is final and binding on the contractor.

iv) PVC and ORC will not be applicable for (i) above.

2.16 STRIKES & LOCKOUT

2.16.1 The contractor will be fully responsible for all disputes and other issues connected with his labour/employee. In the event of the contractor's labour/employee resorting to strike or the Contractor resorting to lockout and if the strike or lockout declared is not settled within a period of 15 days, BHEL shall have the right to get the work executed through any other

agencies and the cost so incurred by BHEL along with Overhead charges of 35% shall be deducted from the Contractor's bills along with overhead of 35%

2.16.2 For all purposes whatsoever, the employees of the contractor shall not be deemed to be in the employment of BHEL

2.17 FORCE MAJEURE

The following shall amount to Force Majeure:-

2.17.1 Acts of God, act of any Government, War, Sabotage, Riots, Strike, Civil commotion, Police action, Revolution, Flood, Fire, Cyclones, Earth quake and Epidemic and other similar causes over which the contractor has no control.

2.17.2 If the contractor suffers delay in the due execution of the contractual obligation due to delays caused by force majeure as defined above, the agreed time of completion of the job covered by this contract or the obligations of the contractor shall be extended by a period of time equal to period of delay, provided that on the occurrence of any such contingency, the contractor immediately reports to BHEL in writing the causes of delay and the contractor shall not be eligible for any compensation.

2.18 ARBITRATION & RECONCILIATION

2.18.1 In case amicable settlement is not reached in the event of any dispute or difference arising out of the execution of the Contract or the respective rights and liabilities of the parties or in relation to interpretation of any provision by the Contractor in any manner touching upon the Contract, such dispute or difference shall (except as to any matters, the decision of which is specifically provided for therein) be referred to the sole arbitration of the arbitrator appointed by BHEL/In charge.

The award of the Arbitrator shall be binding upon the parties to the dispute Subject as aforesaid, the provisions of Arbitration and Reconciliation Act 1996 (India) or statutory modifications or reenactments thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. The venue of the arbitration shall be the place from which the contract is issued or such other place as the Arbitrator at his discretion may determine

2.18.2 In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of the Contract, such dispute or difference shall be referred to by either party to the arbitration of one of the arbitrators in the department of public enterprises. The award of the arbitrator shall be binding upon the parties to the dispute, provided, however, any party aggrieved by such award may make further reference for setting aside or revision of the award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference the dispute shall be decided by the Law Secretary or the Special Secretary or Additional Secretary when so authorized by the Law Secretary, whose decision shall bind the parties hereto finally and conclusively.

2.18.3 The cost of arbitration shall be borne equally by the parties.

2.18.4 Work under the contract shall be continued during the arbitration proceedings

2.19 PAYMENTS

Payments to Contractors are made in any one of the following forms

2.19.1 Running Account Bills (RA Bills)

i) These are for interim payments when the contracts are in progress. The bills for such interim payments are to be prepared by Contractor in prescribed formats (RA Bill forms).

ii) Payments shall be made according to the extent of work done as per measurements taken up to the end of the calendar month and in line with the terms of payments described in the Tender documents along with relevant statutory documents applicable for the work.

iii) Recoveries on account of electricity, water, statutory deductions, etc are made as per terms of contract

iv) Full rates for the work done shall be allowed only if the quantum of work has been done as per the specifications stipulated in the contract. If the work is not executed as per the stipulated specifications, BHEL may ask the contractor to re do the work according to the required specifications, without any extra cost. However, where this is not considered necessary 'OR' where the part work is done due to factors like non-availability of material to be supplied by BHEL 'OR' non availability of fronts 'OR' non availability of drawings, fraction payment against full rate, as is considered reasonable, may be allowed with due regard for the work remaining to be done. BHEL decision in this regard will be final and binding on the contractor.

v) In order to facilitate part payment, BHEL Site Engineer at his discretion may further split the contracted rates/percentages to suit site conditions, cash flow requirements according to the progress of work

2.19.2 Final Bill

Final Bill is used for final payment on closing of Running Account for works or for single payment after completion of works. *Final Bill* shall be submitted as per prescribed format after completion of works as per scope and upon material reconciliation, along with the following.

- i) *No Claim Certificate* by contractor
- ii) *Clearance certificates where ever applicable viz Clearance Certificates from Customer, various Statutory Authorities like Labour department, PF Authorities, Commercial Tax Department, etc*
- iii) *Indemnity bond as per prescribed format BHEL shall settle the final bills after deducting all liabilities of Contractor to BHEL*

2.20 PERFORMANCE GUARANTEE FOR WORKMANSHIP

2.20.1 Even though the work will be carried out under the supervision of BHEL Engineers the Contractor will be responsible for the quality of the workmanship and shall guarantee the work done for a period of as mentioned in the contract/NIT from the date of commencement of guarantee period as defined in Technical Conditions of Contract, for good workmanship and shall rectify free of cost all defects due to faulty erection detected during the guarantee period. In the event of the Contractor failing to repair the defective works within the time specified by the Engineer, BHEL may proceed to undertake the repairs of such defective works at the Contractor's risk and cost, without prejudice to any other rights and recover the same from the balance security deposit.

2.20.2 BHEL shall release the balance security deposit subject to the following

- i) Contractor has submitted *Final Bill*
- ii) *Guarantee period as per contract has expired*
- iii) Contractor has furnished *No Claim Certificate* in specified format
- iv) BHEL Site Engineer/Construction Manager has furnished the *No Demand Certificate* in specified format

v) Contractor has carried out the works required to be carried out by him during the period of Guarantee and all expenses incurred by BHEL on carrying out such works is included for adjustment from the Guarantee money refundable.

2.21 CLOSING OF CONTRACTS

The Contract shall be considered completed and closed upon completion of all contractual obligations and settlement of Final Bill or completion of Guarantee period whichever is later. Upon closing of Contract, BHEL shall issue a completion certificate as per standard format, based on specific request of Contractor.

2.22 REVERSE AUCTION/PRICE BID OPENING:

- BHEL reserves the right to go for reverse auction at any point of time before opening of Price Bid.
- Bids with non-acceptance of reverse auction will be liable for rejection.
- Opening of Price Bid at discretion of BHEL.
- BHEL shall be at liberty to cancel the tender at any time, before ordering, without assigning any reason.

2.23 SUSPENSION OF BUSINESS DEALINGS

BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.

2.24 OTHER ISSUES

2.24.1 Value of Non judicial Stamp Paper for Bank Guarantees and for Contract Agreement shall be not less than Rs 200/- unless otherwise required under relevant statutes.

2.24.2 In case of any conflict between the General Conditions of Contract and Special Conditions of Contract, provisions contained in the Special Conditions of Contract shall prevail.

2.24.3 Unless otherwise specified in NIT, offers from consortium /JVs shall not be considered.

2.24.4 BHEL may not insist for signing of Contract Agreements in respect of low value and short time period contracts

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at “BHEL House”, Siri Fort, New Delhi – 110049 (India) hereinafter referred to as “The Principal”, which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as “The Bidder/ Contractor” which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for

_____. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in

order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 – Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidders(s)/ Contractor(s) from the tender process or take action as per the separate “Guidelines for Suspension of Business Dealings with Suppliers/ Contractors” framed by the Principal.

Section 4 – Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

Section 5 – Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to demand from his sub-contractors a commitment consistent with this Integrity Pact. This commitment shall be taken only from those sub-contractors whose contract value is more than 20% of Bidder's/ Contractor's contract value with the Principal.
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 –Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or

take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.10 The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

- 9.1 This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.
- 9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 – Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.
- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal
(Office Seal)

For & On behalf of the Bidder/ Contractor
(Office Seal)

Place-----

Date-----

Witness: _____

(Name & Address) _____

Witness: _____

(Name & Address)_____

ANNEXURE TO INTEGRITY PACT

INTEGRITY PACT (IP)

- (a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/Contractors are handled in a fair, transparent and corruption free manner. Following independent External Monitors (IEMs) on the present panel have been appointed to oversee implementation of IP in BHEL.

1. Shri Arun Chandra Verma, IPS (Retd.)

Email: acverma1@gmail.com

AND

2. Shri Virendra Bahadur Singh, IPS (Retd.)

Email: vbsinghips@gmail.com

- (b) The IP as enclosed with the tender (total 7 sheets) is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial bid. Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- (c) Please refer Section-8 of the IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.

Note: No routine correspondence shall be addressed to the IEM (phone/post/email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

Details of the contact person:

Mr Chandrashekhar C Jaka
DGM, (SC&PV-PVSS)
5th Floor, New Engineering Building,
BHEL- Electronics Division
Mysore Road, Bangalore -560 026.
Phone: 080- 26998392/8232

PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY
(On non-Judicial paper of appropriate value)

Bank Guarantee No.....

Date.....

To

(Employer's Name and Address)

.....

Dear Sirs,

In accordance with the terms and conditions of Invitation for Bids/Notice Inviting Tender No.....1(Tender Conditions), M/s. having its registered office at2 (hereinafter referred to as the 'Tenderer'), is submitting its bid for the work of.....3 invited by4.(name of the Employer) through its Unit at(

The Tender Conditions provide that the Tenderer shall pay a sum of Rs as Earnest Money Deposit in the form therein mentioned. The form of payment of Earnest Money Deposit includes Bank Guarantee executed by a Scheduled Bank.

In lieu of the stipulations contained in the aforesaid Tender Conditions that an irrevocable and unconditional Bank Guarantee against Earnest Money Deposit for an amount of5 is required to be submitted by the Tenderer as a condition precedent for participation in the said Tender and the Tenderer having approached us for giving the said Guarantee,

we, the[Name & address of the Bank]
..... having our Registered Office at
.....(hereinafter referred to as the Bank) being the Guarantor under this Guarantee, hereby irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer without any demur, merely on your first demand any sum or sums of Rs. 5
.....(in words Rupees.....) without any reservation, protest, and recourse and without the beneficiary needing to prove or demonstrate reasons for its such demand.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Vendor/Contractor/Vendors in any suit or proceeding pending before any Court or Tribunal, Arbitrator or any other authority, our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment hereunder and the Tenderer shall have no claim against us for making such payment.

We Bank further agree that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Tender or to extend the time of submission of from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Tenderer and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Tenderer or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Tenderer or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Tenderer and notwithstanding any security or other guarantee that the Employer may have in relation to the Tenderer's liabilities.

This Guarantee shall be irrevocable and shall remain in force upto and including.....6 and shall be extended from time to time for such period as may be desired by the Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Tenderer but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms hereof. However, unless a demand or claim under this Guarantee is made on us in writing on or before the⁷ we shall be discharged from all liabilities under this Guarantee.

We, Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed.....5.....
- b) This Guarantee shall be valid up to6
- c) Unless the Bank is served a written claim or demand on or before⁷ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank

We, Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of

(Name of the Bank)

Date.....

Place of Issue.....

PRICE BID						
BOQ OF O&M WORKS FOR 30MW MANUGURU						
SI No	Item / Activity description	Unit	Qty (Main)	Estimate Unit rate excluding GST (Rs)	Estimate Total Amount excluding GST (Rs.)	Details
OPERATION & MAINTENANCE FOR 123 MONTHS						
1	Management of complete O & M activities by O&M incharge. One engineer (B.Tech in Electrical Engg.) with 33 kV working experience to be appointed who will be the overall O&M incharge of the plant.	Months	123	25,089.75	3,086,039.25	<p>Major responsibilities of O&M incharge :</p> <p>(i) Allotment of work to all the O&M staff and supervision of O&M works as per schedule approved by BHEL.</p> <p>(ii) Sending Daily, weekly and Monthly report to BHEL by mail.</p> <p>(iii) Interaction with customer / TSTRANSCO / SLDC etc.</p> <p>(iv) Coordinating with sub-station upon grid failures /cable faults and implementing the needful steps to restore the plant to normal operation.</p> <p>(v) Monthly downloading of data from ABT meter using CMRI / as instructed by TSTRANSCO.</p> <p>(vi) Maintaining plant records and log books, stock register and reporting to BHEL.</p> <p>(vii) Trouble-shooting and Updation of SCADA system if required as instructed by BHEL.</p> <p>(viii) Theft incidents: immediate reporting to BHEL, filing FIRs at police stations on BHEL behalf, coordination for site inspection by insurance companies and clearance of insurance claims, logging of events (date, time) and maintaining records.</p> <p>(ix) Accidents: immediate reporting to BHEL, coordinating with hospitals, logging of events (data, time) and maintaining records.</p> <p>Payment for Services of O&M in Charge shall be as per attendance records maintained and deductions will be passed in case of non-availability.</p>
2	Plant Operation works such as (i) Logging of DC, AC, grid parameters (current, voltage, power, energy) at PCUs, HT panels, transformer temperatures, equipment tripping/ breakdown, grid outage as per BHEL formats. (ii) SCADA data station / HMI PC operations/ CCTV operation for daily monitoring of weather parameters, trend graphs and urgent reporting to BHEL in case of any problems / anomalies observed with any of the parameters, resolving communication issues between SCADA and other equipment, healthiness of all equipment	Months	123	50,576.40	6,220,897.20	<p>*Minimum 5 technicians (Diploma / ITI) to be allocated for this activity. The O&M works mentioned are indicative. All the activities required for O&M shall be carried out by technicians as instructed by BHEL. Monthly reports to be prepared and submitted by mail to BHEL for the various parameters including Earth resistance, String current, Energy exported etc. as per report formats finalized by BHEL.</p> <p>Atleast two technicians out of 7, shall be qualified for operating installations of 33KV and above. Certificate / license copy to be submitted to BHEL before commencement of O&M works. One technician to be posted in Night shift operation.</p> <p>Measurement of above activities shall be done as per O&M Log book records maintained. Deductions shall be passed in O&M Contractor Bills for any activities not completed.</p>

3	Carrying out Preventive and Breakdown maintenance as per O&M schedule / OEM guidelines / maintenance manual such as a) Cleaning, tightness checks, lubrication and other maintenance of equipment - PCUs, HT panels, Inverter transformers, Auxiliary transformers, ACDB, FCBC, UPS, Battery banks, SMBs, SCADA, WMS, CCTV, Fire Alarm, ESE Lightning arresters, earthing, light fitting -indoor and outdoor etc. b) Replacement of Silica gel, gaskets, Rectification of Oil leakages in all transformers. c) Repair/ replacement of failed 33KV cable inside plant, replacement of failed 33 kV termination/ jointing kits. d) Trouble-shooting of solar array problems as DC earth fault, OFC/ communication cable faults, replacement of damaged PV modules, SMB components etc. e) Checking tightness of MMS and PV Modules (f) Monthly earth resistance measurement and recording value on the Earth chambers (g) Watering of earth pits	Months	123	41,096.16	5,054,827.68	<p>*(i) Minimum 2 technicians (Diploma/ITI) with required helpers to be allocated for this activity.</p> <p>(ii) List of equipment mentioned is indicative. Maintenance of all the equipments installed in plant is in vendor's scope.</p> <p>(iii) Periodic maintenance shall be preferably carried out during evening to avoid generation loss.</p> <p>(iv) Whenever a fault has occurred, the contractor has to attend to rectify the fault & the fault must be rectified within 48 hours from the time of occurrence of fault.</p> <p>(v) Major spares such as complete equipment failures of CT, PT, LA, Breaker, Isolator, SMB, PCU, transformer, cables, HT termination and jointing kits etc. if any will be supplied by BHEL.</p> <p>(vi) Minor spares and consumables such as MCBs, Fuses, peripheral and building Lights, fans, indication lamps, gaskets, silica gel, acid for battery, hardwares, cable lugs and glands of all required sizes, MC4 connectors, PCU dust filter, PEB room louver air filter, sanitary fittings etc. if required shall be supplied by vendor.</p> <p>(vii) In case of Maintenance activity / failure / damage / accident / replacement / repair required for any of the plant equipment such as Solar modules, HT panels, all transformers etc. or for any other site related activities, unloading, erection, installation, charging, co-ordination with agencies involved, etc., shall be in O&M vendor's scope. Arrangement of Crane / hydra / JCB/ additional labour hiring / Ladder, etc., for arranging replacement of failed equipment shall also be in the scope of O&M vendor.</p> <p>(viii) All tools and tackles, measuring instruments, testing equipment required for maintenance activities shall be arranged by O&M vendor.</p> <p>Measurement of above activities shall be done as per O&M Log book records maintained.</p> <p>Deductions shall be passed in O&M Contractor Bills for any activities not completed.</p>
4	Water cleaning of solar modules of approximately 1,00,800 nos. (Two cycles per month, each cycle shall consist of cleaning of entire 1,00,800 Nos modules).	Months	123	55,696.41	6,850,658.43	<p>(i) Required labourers (in discussion with BHEL) to be allocated to complete this activity within the scheduled time period.</p> <p>(ii) Water shall be pumped from borewells and will be stored in underground/overhead water tanks at site. Water from tanks shall be pumped through already installed pipeline network and pumps to facilitate water flow for modules cleaning.</p> <p>(iii) In case water is not available in borewells, vendor shall arrange water using tankers and payment for supply of water through tankers shall be made by BHEL.</p> <p>(iv) All the consumables for cleaning of modules such as cleaning brushes, mopping sticks etc. shall be arranged by vendor.</p> <p>(v) In case of natural cleaning of solar modules by rains and cleaning not carried out, no payment will be done for that cycle within the month.</p> <p>(vi) Three cycles of cleaning of entire solar modules has to be completed in a month by the vendor. In case, lesser quantity of solar modules are cleaned, proportionate payment will be made for quantity of solar modules cleaned up to last day of each month.</p> <p>(vii) Each solar module is of 2m x 1m size and 40 solar modules are mounted on each structure.</p> <p>Measurement of above activity shall be done as per table basis and as per cycle basis.</p> <p>Deductions shall be passed in O&M Contractor Bills for any incomplete work.</p>
5	Supply of water using tankers	Kilo Litres	6000	250.42	1,502,520.00	Water shall be supplied using tankers from external source in case water is not available in borewells.

6	Cutting & removal of grass from site - maintenance of entire plant without grass including non modular area and near boundary wall. (One cycle per month)	Months	123	30,107.70	3,703,247.10	(i) Required labourers (in discussion with BHEL) to be allocated to complete this activity withing the schedules time period (ii) Vendor to supply 3 nos of Motorized Grass cutting machines. Repair and maintenance of grass cutting machines shall be in vendor's scope. (iii) Petrol/Diesel/electricity expenses shall be in vendor's scope for operation of the grass cutting machine. (iv) In case if grass is not grown and cutting is not carried out, no payment will be done for the month. Payment for this activity shall be as a percentage of workdone as certified by the BHEL Site Incharge.
7	*Deployment of Security persons for the entire plant in 3 shifts per day with minimum 4 security persons in each shift (2 with arms and 2 without arms).	Man Months	1476	10,536.75	15,552,243.00	(i) Securing entire plant area. (ii) In case of theft, FIR to be lodged by O&M vendor. (iii) If theft incidents are due to negligence of O&M vendor such as shortage of security, the loss recovery shall be done from vendor. Measurement of Services of Security guards shall be as per attendance records maintained and deductions will be passed in O&M Contractor Bills in case of non-availability at site.
8	Tilting of Solar PV Module mounting structures. (One cycle per 6 months) Each cycle to be completed within 15 days period	Cycles	20	618,811.00	12,376,220.00	All the PV Modules shall be tilted once in 6 months to change the angle of inclination. O&M Contractor shall engage separate labour (without cost implication) as required for completing this activity within the time schedule specified. Cost incurred due to damage to the modules, structure and fasteners during tilting will be recovered from O&M Contractor.
9	General maintenance works such as Daily housekeeping activity for Inverter rooms and Control room including toilets, Garbage removal from solar array area, repair of plumbing works, underground water tanks, Sintex tanks, cleaning of sewerage lines, septic tanks, soak pits if required, minor civil repair works such as leakages, doors, windows, rolling shutters, ventilators, floor/ tiles/ wall cracks, cleanning of drains etc.	Months	123	12,845.95	1,580,052.10	(i) Required labourers (in discussion with BHEL) labourers to be allocated for this activity. (ii) All the buildings - Main Control room and Inverer rooms to be mopped daily and surroundings to be kept clean. (iii) All toilets to be cleaned daily. (iv) All consumables required for this activity shall be in vendor's scope. Measurement of above avtivities shall be done as per O&M Log book records maintained. Deductions shall be passed in O&M Contractor Bills for any activities not completed.
10	Annual maintenance of all transformers with respect to BDV measurement, Oil filtering as required, DGA test, tightness of cables, earthing and hardwares, replacement of gasket, silica gel breather, paint touchup, arresting oil leakages and oil topup of all transformers (33KV and aux transformers) and other related electrical works.	Years	10	200,718.00	2,007,180.00	Through OEM / competent testing agencies as approved by BHEL. All required tools, tackles, testing and measuring instruments, Oil filtration kit, DG set etc. to be arranged by vendor. The Annual Maintenance activities shall be carried out between November to January and will be measured only when all activities listed are completed. Payment for any Maintenance not carried out shall be deducted from O&M Contractor Bills.
11	Annual testing and calibration of 33 kV HT panel equipment as VCBs, CTs, PTs, Numerical relays, electromechanical relays, MFMs, Energy Meters etc.	Years	10	130,467.60	1,304,676.00	Through OEM / competent testing agencies as approved by BHEL. All required tools, tackles, testing and measuring instruments, DG set etc. to be arranged by vendor.
12	Calibration of Weather Monitoring Station equipment	Years	10	50,085.00	500,850.00	Weather monitoring station equipment to be calibrated at IMD or OEM recommended labs as per calibration period of individual equipment as recommended by OEM.
13	Checking and re-filling of Fire extinguishers and sand buckets as required.	Months	123	6,690.60	822,943.80	All the fire extinguishers to be checked for healthiness and re-filling to be carried out as and when required.
14	Maintenance and Servicing of Airconditioners, Refrigerator, Furniture, Water purifier, fans, grass cutting machines etc. Daily Tea/ Coffee and drinking water to be provided for customers and BHEL Staff.	Months	123	5,017.95	617,207.85	Complete maintenance and servicing of equipment as and when required to be carried out by vendor.
15	Painting of all metal structures (non-galvanized), rolling shutters, switchyard and transformer yards fencing and gates, all rusted components etc.	Years	10	30,108.00	301,080.00	Painting of all metal structures shall be carried out once in every year.

