

Bharat Heavy Electricals Ltd
Electronics Division, Mysore Road, Bangalore – 560026

TENDER DOCUMENT

CONDUCTING TOPOGRAPHICAL SURVEY AND SOIL INVESTIGATION WORKS FOR 75MW GSECL PV POWER PLANT AT DHUVRAN, GUJARAT AND 10MW GNFC PV POWER PLANT AT GUJARAT SOLAR PARK, CHARANKA, GUJARAT

1. Project detail and Location:

Site Detail	Project detail	Location
Project Site-1	75MWp (AC) SPV Power plant for GSECL	Dhuvaran, Dist.: Anand, Gujarat state
Project Site-2	10MWp (AC) SPV Power plant for GNFC	Gujarat Solar Park, Charanka, Dist.: Patan, Gujarat state

DATE OF INTIMATION: 24.01.2019

Part-I OF THIS TENDER DOCUMENTS CONTAIN:

1. Notice Inviting Tender.
2. Technical-cum-commercial bid **(to be filled-up by tenderer)**.
3. Instructions to Tenderer.
4. Condition of Contract.
5. Technical Specification
6. Safety Declaration letter on bidders letter head.
7. Other relevant documents like acceptance for condition of contract/specification, Form of Tender.
8. BHEL General Conditions of Contract 2019
9. Unpriced Price Bid

M. Natesan

Mowleeswaran Natesan,
Dy. Manager-Civil, BHEL-EDN

CONTRACTOR (SIGN & SEAL)

Part – II Price Bid:

1. Bill of quantities (BOQ) for total scope of work of two Project Sites (Project Site-1 & Project Site-2).

Note:

- (1) Bidders are advised to quote their best prices (% over the estimate +/_) as no further price bids will be accepted in case BHEL decides to open price bids instead of reverse auction**
- (2) 2. Reverse auction seal bid opening price should not be more than the manual quoted (hand written) price bid.**

Note:

1. Part I: To be submitted in a separate sealed cover.
2. Part II: To be submitted in a separate sealed cover.
3. Earnest Money Deposit: Not Applicable
4. Part-I, Part-II sealed covers should be put in outer envelope and super scribing the Name of work, RFQ number, BHEL address and Name & Address of the Tenderer.

Shri. MANOJ KUMAR, DGM (SC&PV)
NEB 5TH FLOOR
Bharat Heavy Electricals Ltd
Electronics Division
Mysore Road, Bangalore – 560026

M. Natesan

Mowleeswaran Natesan,
Dy. Manager-Civil, BHEL-EDN

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NOTICE INVITING TENDER

1. TENDER No. / RFQ No.: EDN: PVSS: GSECL+GNFC: 75+10 MW: Topo/02, Dt.: 24-05-2019
2. NAME OF WORK : CONDUCTING TOPOGRAPHICAL SURVEY AND SOIL INVESTIGATION WORKS FOR 75MW GSECL PV POWER PLANT AT DHUVARAN, GUJARAT AND 10MW GNFC PV POWER PLANT AT GUJARAT SOLAR PARK, CHARANKA, GUJARAT
3. EARNEST MONEY DEPOSIT : NOT APPLICABLE
4. SECURITY DEPOSIT : NOT APPLICABLE
5. COMPLETION TIME : 06 WEEKS FROM THE DATE OF ISSUE OF HANDING OVER OF SITE (or) WORK ORDER FOR ALL ACTIVITIES PUT TOGETHER.
6. LAST DATE AND TIME FOR THE SUBMISSION OF DULY FILLED IN TENDER DOCUMENT : **ON 10.06.2019 BEFORE 01:00 P.M.**
7. PLACE OF SUBMISSION/
ADDRESS TO BE SUPERSCRIBED ON TENDER ENVELOPE : Shri. MANOJ KUMAR, DGM /SC&PV
5TH FLOOR, N.E.B. BUILDING,
BHEL-ELECTRONICS DIVISION,
MYSORE ROAD, BANGALORE-560026
Ph. No:9972644556, 9886604404
8. DATE AND TIME OF TECHNICAL BID OPENING : **ON 10-06-2019 AT 01:30 P.M.**
9. DATE AND TIME OF PRICE BID OPENING : **WILL BE INTIMATED SEPARATELY**
10. PENALTY AS PER BHEL GENERAL CONDITIONS OF CONTRACT 2019 CLAUSE NO. 2.7.9.

NOTE:

- A. Tenderer shall return the duly filled in Tender document after affixing Signatures and seal on **all pages** of tender document and submit.
- B. Bidders desiring to be present for the opening shall depute their representatives with due letter of authorization presented well in advance.
- C. Separate intimation regarding availability of site to commence the Soil testing & investigation will be given to successful bidder.
- D. General conditions of contract of BHEL, which can be collected from BHEL (If required) will form a part of this NIT.



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TECHNICAL-CUM-COMMERCIAL BID
(To be furnished by the Bidders)

01. NAME OF THE WORK : CONDUCTING TOPOGRAPHICAL SURVEY AND SOIL INVESTIGATION WORKS FOR 75MW GSECL PV POWER PLANT AT DHUVARAN, GUJARAT AND 10MW GNFC PV POWER PLANT AT GUJARAT SOLAR PARK, CHARANKA, GUJARAT

02. COMPLETION PERIOD : **06 WEEKS** (FROM DATE OF LOA/ W.O ISSUED/HANDING OVER OF SITE)

03. NAME OF THE CONTRACTOR :

04. ADDRESS

(A) OFFICE :

E-mail

TEL. PH. NO.

(B) RESIDENCE

TEL.PH NO

05. QUALIFICATION :

06. STAFF STRENGTH :

(A) TECHNICAL :

(B) GENERAL :

07. PLANT/EQUIPMENTS/LABORATORY DETAILS : To be enclosed

8. EXPERIENCE CERTIFICATE SUCESSFULLY COMPLETED : To be enclosed
SIMILAR CONSULTANCY WORKS :

9. BHEL'S PAYMENT TERMS (as per following details) :

a. No Advance payment

b. Payment will be made 45 days after submission of Report and accepted by BHEL Engineer.

c. Price variation clause not applicable.

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10. Bidder shall be agreeable to make necessary statutory payments as per BHEL EDN terms and conditions.

11. Constitution of Firm : Individual / Sole Proprietorship Concern /
Partnership Firm / Public Ltd. Company/
Private Ltd. Company

12. GST NO : ----- (To be enclosed)

13. Pan Card NO: ----- (To be enclosed)

14. Penalty as per BHEL General conditions of contract
2019 clause 2.7.9. : Accepted / Not accepted

15. BHEL reserves right to conduct reverse auction.
Indicate acceptance. : Accepted / Not accepted

16. Acceptance for splitting the scope of work : Accepted / Not accepted

17. PRE QUALIFICATION CRITERIA: (MANDATORY REQUIREMENTS FOR PRE-QUALIFICATION)

a): Bidder to submit the similar work experience certificates

b): Bidder should have valid NABL accreditation certificate (or) bidder should submit Tie-up letter from NABL accredited lab/organization.

18. BHEL Payment terms acceptance. Yes/no

Note: Offers of the Tenderers not meeting the above requirements are liable to be rejected.

Documents required to be submitted

1. Copy of PAN/GIR No. Registration Certificate issued by Income Tax Authority
2. Certificate of TIN Number
3. Service Tax Registration Certificate
4. Registration Certificate with ESI and PF Authority/Declaration
5. Income Tax Returns for last Three years
6. Balance Sheet and Profit & Loss Account for the last Three years
7. Registration with BHEL/CPWD/NABL/other Govt. organization if any.
8. Any other statutory requirement as per the local government body if applicable.

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SPLITTING OF THE SCOPE OF WORK:

- 1 In view of large quantum of work and restricted period for completion of project and project location, proposed to split the contract/scope of work in two parts as per sl. no. 2.
- 2) It is proposed to award the work to,
 - (a) L1 and L2 bidder with scope of work of 75MW GSECL to L1 and 10MW GNFC to L2, in such case L2 bidder has to match the price of L1 bidder.
 - (b) In case of denial of the same by L2 bidder, it shall be offered subsequently to all other bidders till BHEL get one vendor to accept L1 prices and then scope of work shall allotted as mentioned.
 - (c) However in case no bidder agrees to match L1 price , then L1 bidder is bound to execute the scope of work of 75MW GSECL + 10MW GNFC sites (or) BHEL may take a decision to re-float part/full scope of work of the tender.

NOTE:

If the bidder fails to perform as per the terms and conditions of NIT (including submission of the topo survey report and soil investigation report), BHEL reserves the right to cancel the work order and get the work done from other contractor at the risk and cost of the bidder.



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Bharat Heavy Electricals Limited
ELECTRONICS DIVISION
MYSORE ROAD- BANGALORE-26

INSTRUCTIONS TO TENDERER

1. All entries in tender documents should be in one ink (preferably blue ink). Erasing and overwriting is not permitted. All corrections should be duly signed by tenderer concerned.
2. Tenderers shall fill in all the required particulars in the blank space provided for this purpose in the tender documents and also sign in each and every page of the tender documents attached before submitting tender.
3. In Price bid bidders are advised to quote their best prices (% over the estimate +/-) as no further price bids will be accepted in case BHEL decides to open price bids instead of reverse auction.
4. Bidders to submit the unpriced copy of the price schedule for compliance to the terms and quantities indicated in the price schedule along with the technical bid duly stamped according their acceptance. (Mandatory requirement).
5. The tenderer shall note that, NO Claim for variation of rates, on the ground that existing statutory levies have been increased / decreased or those new statutory levies have come into effect after tender, or on any other ground, will be entertained.
6. (a) The rate quoted in the tender shall remain valid for a period of 'THREE MONTHS' from the date of opening tender.
(b) Tenderer shall not increase quoted rates, once the tenderer has submitted offers/quotation/price and during execution of contract in case tender is accepted.
(c) Successful bidder should execute the work strictly in accordance with Tender schedule quoted rates as accepted by BHEL.
(d) The rates quoted should be exclusive of all taxes arising on the transaction. Tax shall be indicated separately as applicable.
7. Before tendering, the tenderer are advised to inspect the site of work and its environments and be well acquainted with the actual working and other prevailing conditions, position of material and labor. They should be well versed with BHEL Conditions of Contract, instruction to the tenderers, technical specification, schedule of works and all other documents which form part of the agreement to be entered into subsequent to award of work. The tenderer should be specially note that it is tenderers responsibility to provide any items which is not specifically mentioned in the specifications and scope, but which is necessary to complete the work and tenderers shall make his own arrangements for the transport of personnel and equipment to the site and for the stay and boarding facilities of their team at site during the course of work. Vendor shall ensure safety of the operating team and personnel at site during the execution of work.



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8. Details and quantities of each item of work shown in the bill of quantities attached here to only approximate. They are given as a guide for the purpose of tendering only and are liable for variation and alteration at the discretion of the competent authority. The work under each item as executed shall be measured and price at the corresponding rates to be quoted by the Contractor in the bill of quantities attached hereto.

9. In the event of the tender being submitted by a firm the tender must be signed separately and legibly by each partner or member of the firm or in their absence, by the person holding the power of Attorney on behalf of firm concerned. In the later case, a copy of the power of Attorney duly attested by the Gazetted Officer must accompany the tender.

10 The BHARAT HEAVY ELECTRICALS LIMITED reserve the right to reject any or all the tenders received or accept any tender or part thereof without assigning reason thereof. In the case of acceptance of a part of tender, the time for completion may also be reduced to the extent considered necessary by the accepting authority.

11. Conditional and Unsigned tenders, tenders which are incomplete or otherwise considered defective, tenders which are not in accordance with the tender conditions laid down by the accepting officer and tenders not submitted in the prescribed forms are liable to be rejected.

12. The Contractors responsibility under this contract shall commence from date of receipt of the order or acceptance of tender.

13. Tenders submitted by speed post or courier service shall be posted with due consideration of any delay in postal delivery. Tenders received after the due date and time of opening tenders are liable to be rejected.

14. Scope of works of tenderers includes deployment of manpower, equipments etc. to carry out the topographical survey and soil testing & investigation and submission of test reports drawing etc. as per condition of contract, Technical specification and schedule of works. BHEL shall not provide any equipment/ manpower / material for the work.

15. Any covering letter and comments of the tenderer should be submitted along with the offer.

16. Should a tenderer or a contractor has a relative or in the case of firm or company, any of its shareholders relative is employed in Bharat Heavy Electricals Limited, the authority inviting tenders shall be informed of this fact at the time of submission of the tender, failing which tender may be disqualified or if such fact subsequently comes to light.

17. Contractor shall insure all his labourers and material. Any claim by his Employees for damages shall be settled by the Contractor even if action is against BHEL or to reimburse the legal expenses incurred by BHEL.



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18. Any action brought in by anybody on BHEL regarding patent, right etc., used by Contractor in execution of work shall be defended by the Contractor and / or reimburse BHEL the cost of the same.

19. Contractor shall produce necessary records, documents; explanation whenever he is called upon to do by any Government Agencies.

20. **EXTRA ITEMS**

No extra items of work shall be carried out by the contractor other than those authorized to do so in writing by the Engineer-in-charge. For any such items of work executed as per instructions of Engineer-in-charge, the rates will be fixed on the basis BHEL terms and condition.

21. In case, work is not completed as per the BHEL scope due to any unforeseen reasons, contractor has to complete the job at later stage without any extra charge. No overturn charges shall be paid in case of extension of work schedule.



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CONDITONS OF CONTRACT

1. The conditions of contract and other tender documents are complimentary to each other and shall be read in conjunction with each other.

2. SCOPE OF WORK

The scope of work includes for the full, final and entire completion of all Soil Investigation and Topographical survey works as detailed in specifications and bill of quantity, which forms part of this Contract. The scope of work also includes cleaning/removing all debris, refilling of holes etc as per direction of the Engineer-in-charge.

The scope of work under this contract shall cover supply of all materials, labour, tools, and plants etc.,

3. SITE FACILITES

A. **LAND:** The contractor must maintain the areas allotted to him in a neat and clean conditions as required by the Employer. On completion of work, the site shall be cleaned by the contractor of all materials, temporary debris, rubbish plants and equipment's, belonging to the contractor at no extra cost. The site and surroundings shall be handed over in a neat and clean condition. In case of any failure by the contractor, the employer will get inside cleared at risk and cost of the Contractor.

B. **POWER AND WATER SUPPLY:** Power and water shall be arranged by the bidder

4. **MACHINERY:** The Contractor shall at his own expense, supply all tools, plant and equipment (hereinafter referred to as T & P) required for execution of contract, as specified in the tender documents. No. P.O.L. can be supplied by the Employer.

a) The whole of the works shall be executed in perfect conformity with the specifications and schedule of works. If contractor perform any works in a manner contrary to the specifications and schedule of works and without reference to the Engineer-in-charge, he shall bear all the costs arising or ensuring there from.

b) All technical documents regarding the works are given in the metric system and work should be carried out according to metric system.

5. SAFETY PRECAUTIONS

The contractor shall at times observe the safety code and make necessary action as required in the tender. In default thereof, the employer may get this done departmentally or through other agencies and recover the cost from the contractor.

6. COMPLETION OF WORK AND MEASUREMENT

a) All work shall be carried out and measured according to scope of work mentioned in Bill of quantity

b) On completion of the work, the Contractor must submit to the Engineer the test reports, topographical drawing etc. as per bill of quantity/ scope of work

M. Natesan

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TECHNICAL SPECIFICATION

CIVIL WORK

The all material, installations, fixtures, accessories etc. to be provided shall be as per the relevant I.S. specifications. These shall be of best quality and of standard manufacturer as approved by the EIC, when there are no standard specifications. The fresh OPC/PPC cement and TMT steel reinforcement bars Fe 415 CRS shall be used confirming to relevant I.S Specifications of the approved manufacturers of GSECL/GNFC/BHEL. The agency has to keep the full proof records of purchase and consumption along with original purchase bills of Cement and Steel as per the GSECL/GNFC/BHEL procedures and rules. The agency has to provide best workmanship with skilled manpower for all the civil items as per the standard specifications/ best practice as approved by the EIC. The booklet Standard Specifications for Civil Works will be applicable wherever there is dispute in the items of civil works. GSECL/BHEL/GNFC will not supply any material for this work.

TOPOGRAPHICAL SURVEY

Topographical survey shall have to be done by the Contractor of the proposed site at 5 m interval with the help of Total Station or any other suitable standard method of survey. All necessary Reduced Levels (RL) as entered in the Field Book/Soft Copy have to be submitted along with pre contour layout of the total site. The formation levels of the proposed power plant have to be fixed with reference to High Flood Level of the proposed site. The ground level and plinth level of structures shall be fixed taking into consideration the highest flood level and surrounding ground profiles

SOIL

Test: Company has provided soil test report in Annexure-A5 which is meant to indicate kind of soil condition site may have and Contractor shall treat it accordingly. Contractor is advised to and is solely responsible to carry out detailed Geotechnical investigation to ascertain soil parameters of the proposed site for the use of planning / designing / construction / providing guarantee / warranty of all civil work including but not limited to foundations / piling for module mounting structures, HT lines, 66 kV switchyard equipment etc. The Contractor shall carry out soil investigation through NABL accredited labs. These reports shall be furnished to the Company prior to commencing work. All RCC works shall be provided of required grade of concrete as per relevant IS specifications as well as soil data considering appropriate earthquake seismic zone, wind velocity, whether effect, soil characteristics etc.

The scope of soil investigation covers execution of complete soil exploration including boring, drilling, collection of undisturbed soil sample where possible, otherwise disturbed soil samples, conducting laboratory test of samples to find out the various parameters mainly related to load bearing capacity, ground water level, settlement, and soil condition and submission of detail reports along with recommendation regarding suitable type of foundations for each bore hole along with recommendation for soil improvement where necessary. The design will done based on considering the worst result among the bore holes. Contractor has to carry out also Electrical Resistivity Test.



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The Contractor shall carry out Shadow Analysis at the site and accordingly design strings and arrays layout considering optimal use of space, material and manpower and submit all the details / design to Company for its review / suggestions / approval.

The Contractor shall obtain and study earthquake and wind velocity data for design of module mounting structure, and considering all parameters related to the weathers conditions like Temperature, humidity, flood, rainfall, ambient air etc.

The foundations should be designed considering the weight and distribution of the structure and assembly, and a maximum wind speed of 180 Km per hour for the site have to be considered while making the design of the foundation. Successful Bidder shall also plan for transport and storage of materials at site and shall arrange for its own construction power and water. However, the Contractor can avail construction power connection from Discom by applying for temporary connection and has to borne all cost for the same. Client will help for supporting documents. However, the Contractor can avail construction water from concern Solar Park Authority and pay for the same at the prevailing existing rates for the usage of water.

The Bidder shall estimate the water requirements for cleaning the photovoltaic modules at least once in every week in order to operate the plant at its guaranteed plant performance.

Prefabricated structures for control room and inverter rooms shall be strictly as per relevant IS standards.



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Declaration in Vendors Letter head

Subject: Certification of Work safety by Testing Agency during Topographical Survey and Soil Investigation work for Solar Power Plant at site mentioned below

This is to certify that, during the execution of the work of “Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat and 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat” for M/s GSECL / M/s GNFC. undertaken by us, we shall be solely responsible for the Safety and health of our team consisting of site engineers, technicians and labour working at the site. Required statutory provisions governing Workmen safety and protection and accident compensation shall be our sole responsibility and entirely covered by us during the course of mobilization and execution of works.

For and on behalf of
M/s



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BHARAT HEAVY ELECTRICALS LIMITED
(ELECTRONICS DIVISION)
MYSORE ROAD- BANGALORE-26

CONDITIONS OF CONTRACT/ SPECIFICATION/SCOPE OF WORK

It is hereby agreed by me/us that the BHEL Conditions of Contract including Specification and Scope subsequent amendments/ additions/deletions to clauses if any, and conditions pertaining the settlement of disputes by Arbitration form an integral part of the tender documents and that the tender submitted by me/ us is subject to the aforesaid BHEL Conditions of Contract/ Specification/Scope for soil investigation and topographical survey works which has been read and accepted by me/us.



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FORM OF TENDER

Having examined the invitation to bid, Instructions to Bidder, conditions of contract, Specifications, tender schedule, and other tender documents for the above work, we the undersigned, offer to construct, erect complete and maintain the whole of the said in conformity with the said bid documents on the terms and conditions and under the provisions set out or called for in the contract documents at the rates listed in the schedule of unit prices or else wherein the contract documents.

We undertake if our bid is accepted, to commence the works from the date of issue of award/handing over the site and to complete and delivery the whole of the works comprised in the contract as per the time schedule agreed to the contract document.

We agree to abide by this bid for the period of three months from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before expiry of the period.

Until and unless a formal intimation /work order, together with your award thereof shall constitute a binding contract between us.



Mowleeswaran Natesan,
Dy. Manager-Civil, BHEL-EDN

CONTRACTOR (SIGN & SEAL)



GENERAL CONDITIONS OF CONTRACT

2019

ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್, ವಿದ್ಯುನ್ಮಾನ ವಿಭಾಗ, ಬೆಂಗಳೂರು
भारत हेवी इलेक्ट्रिकल्स लिमिटेड, इलेक्ट्रॉनिक्स डिवीज़न, बेंगलुरु
Bharat Heavy Electricals Limited, Electronics Division, Bengaluru

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CHAPTER -1

1. GENERAL INSTRUCTION TO TENDERERS

1.1. DESPATCH INSTRUCTION

i) The General Conditions of Contract form part of the Tender specifications. All pages of the tender documents shall be duly signed, stamped and submitted along with the offer in token of complete acceptance thereof. The information furnished shall be complete by itself. The tenderer is required to furnish all the details and other documents as required in the following pages

ii) Tenderers are advised to study all the tender documents carefully. Any submission of tender by the tenderer shall be deemed to have been done after careful study and examination of the tender documents and with the full understanding of the implications thereof. Should the tenderers have any doubt about the meaning of any portion of the Tender Specification or find discrepancies or omissions in the drawings or the tender documents issued are incomplete or shall require clarification on any aspects, the scope of work etc., he shall contact the authority inviting the tender well in time (so as not to affect last date of submission) for clarification before the submission of the tender. Tenderer's request for clarifications shall be with reference to Sections and Clause numbers given in the tender documents. The tender specifications and terms and conditions shall be deemed to have been accepted by the tenderer in the offer. Pre requirements and conditions shall be liable for rejection.

iii) Integrity pact (IP): If NIT calls for Integrity Pact, the same shall be duly signed & stamped by the authorised signatory & submitted along with tender document.

1.2. SUBMISSION OF TENDERS

1.2.1 The tenderers must submit their tenders as per instructions in the NIT

1.2.2 BHEL takes no responsibility for delay, loss or non-receipt of tenders sent by post/courier. The tenders received after the specified time of their submission are treated as 'Late Tenders' and shall not be considered under any circumstances. Offers received by Fax/Email/Internet shall be considered as per terms of NIT.

1.2.3 Tenders shall be opened by authorised Officer of BHEL at his office at the time and date as specified in the NIT, in the presence of such of those tenderers or their authorised representatives who may be present

1.2.4 Tenderers whose bids are found techno commercially qualified shall be informed the date and time of opening of the Price Bids and such Tenderers may depute their representatives to witness the opening of the price bids. BHEL's decision in this regard shall be final and binding.

1.2.5 Before submission of Offer, the tenderers are advised to inspect the site of work and the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, position of material and labour, means of transport and access to Site, accommodation, etc. No claim will be entertained later on the grounds of lack of knowledge of any of these conditions.

1.3. LANGUAGE

1.3.1 The tenderer shall quote the rates in English language and international numerals. These rates shall be entered in figures as well as in words. For the purpose of the tenders, the metric system of units shall be used.

1.3.2 All entries in the tender shall either be typed or written legibly in ink. Erasing and over-writing is not permitted and may render such tenders liable for rejection. All cancellations and insertions shall be duly attested by the tenderer.

1.4 PRICE DISCREPANCY:

1.4.1 Conventional (Manual) Price Bid opening:

i) If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of BHEL there is obvious misplacement of decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly

ii) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected;

iii) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (i) and (ii) above.

iv) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date up to which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of BHEL, the bid is liable to be ignored.

v) In case of lump sum price, if there is any difference between the amount in figures and in words, the amount quoted by the bidder in words shall be taken as correct.

vi) *In case of omission in quoting any rate for one or more items, the evaluation shall be done considering the highest quoted rate obtained against the respective items by other tenderers for the subject tender. If the tenderer becomes L-1, the notional rates for the omission items shall be the lowest rates quoted for the respective items by the other tenderers against the respective omission items for the subject job and the 'Total quoted price (loaded for omissions)' shall be arrived at. However the overall price remaining the same as quoted originally, the rates for all the items in the 'Total quoted price (loaded for omissions)' shall be reduced item wise in proportion to the ratio of 'Original' total price and the 'Total quoted price (loaded for omissions)'.*

1.4.2 Reverse Auction: *In case of Reverse Auction, the successful bidder shall undertake to execute the work as per overall price offered by him during the Reverse Auction process. In case of omission of rates, the procedure shall be as per 'Guidelines for Reverse Auction' enclosed.*

i) *Offers from tenderers who are under suspension (banned) by any Unit/Region/Division of BHEL shall not be considered.*

ii) *Offers from tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt of India shall not be considered.*

1.5. EVALUATION OF BIDS

i) *Technical Bids submitted by the tenderer will be opened first and evaluated for fulfilling the Pre-Qualification criteria and other conditions in NIT/Tender documents, based on documentary evidences submitted along with the offer, BHEL reserves the right to ask for proofs/documents, clarification in relation to Technical/commercial data during tender evaluation*

ii) *Price Bids of shortlisted bidders shall only be opened either through the conventional price bid opening or through electronic Reverse Auction, at the discretion of BHEL*

iii) *Price Bids of unqualified bidders shall not be opened. Reasons for rejection shall be intimated to the vendor before the opening of Price bid.*

1.6. DATA TO BE ENCLOSED

The following information in full shall be furnished by the tenderer. Non-submission of this information may lead to rejection of the offer.

i) *INCOME TAX PERMANENT ACCOUNT NUMBER, GSTIN, SAC, HSN Certified copies of PAN, GSTIN shall be furnished along with tender. The names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.*

ii) *An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor.*

iii) IN CASE OF INDIVIDUAL TENDERER:

His / her full name, address, PAN, GSTIN and place & nature of business to be furnished.

iv) IN CASE OF PARTNERSHIP FIRM

The names of all the partners and their addresses, a copy of the partnership deed/instrument of partnership shall be enclosed.

v) IN CASE OF COMPANIES:

Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished). Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.

1.7. AUTHORISATION AND ATTESTATION

Tenders shall be signed by a person duly authorised/empowered to do so. An attested copy of the Power of Attorney, in case the tender is signed by an individual other than the sole proprietor shall be submitted along with the tenders

1.8. EARNEST MONEY DEPOSIT

1.8.1 Every tender must be accompanied by the prescribed amount of Earnest Money Deposit (EMD) in the manner described herein.

The EMD may be accepted only in the following forms:

- (i) Electronic Fund Transfer credited in BHEL account (before tender opening)*
- (ii) Banker's cheque/ Pay order/ Demand draft, in favor of BHEL (along with offer) In case total EMD amount is more than Rs 20 Lakh, the amount in excess of Rs 20 lakh maybe accepted in the form of Bank Guarantee from scheduled bank. The Bank Guarantee in such cases shall be valid for at-least six months.*
- (iii) Through SBI collect (before tender opening)*
- (iv) No other form of EMD remittance shall be acceptable to BHEL*

1.8.2 EMD by the bidder will be forfeited as per Tender Documents if

- i) After opening the tender and within the offer validity period, the tenderer revokes his/her tender or makes any modification in his tender which is not acceptable to BHEL.*
- ii) The Contractor fails to deposit the required Security deposit or commence the work within the period as per LOI/ Contract.*
- iii) EMD by the tenderer shall be withheld in case any action on the tenderer is envisaged in derailing the tender process by unlawful means*

1.8.3 EMD shall not carry any interest.

1.8.4 In the case of unsuccessful bidders, the Earnest Money will be refunded to them within a reasonable time after acceptance of award by successful tenderer.

1.8.5 EMD of successful tenderer will be converted as part of Security Deposit

1.9. SECURITY DEPOSIT

The total amount of Security Deposit will be 5% of the contract value (including all applicable taxes) EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security Deposit.

1.9.1 Modes of Security deposit:

The balance amount to make up the required Security Deposit of 5% of the contract value may be accepted in the following forms:

- i) Cash (as permissible under the extant Income Tax Act)*
- ii) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL*
- iii) Bank Guarantee from Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL*
- iv) Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL)*
- v) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL) (Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith)*
- vi) 50% of the required Security Deposit, including the EMD, should be paid before start of the work. Balance of the Security Deposit can be collected by deducting 10% of the gross amount progressively from each of the running bills of the Contractor till the total amount of the required Security Deposit is collected. If the value of work done at any time exceeds the contract value, the amount of Security Deposit shall be correspondingly enhanced and the additional Security Deposit shall be immediately deposited by the Contractor or recovered from payment/s due to the Contractor. Security Deposit shall be released to the Contractor upon fulfilment of contractual obligations as per terms of the contract.*

1.9.2 The Security Deposit shall not carry any interest.

1.9.3 The validity of Bank Guarantees towards Security Deposit shall be initially up to the completion period as stipulated in the Letter of Intent/Award (plus maintenance period if applicable), and 03 months claim period. The same shall be kept valid by proper renewal till the acceptance of Final Bills of the Contractor, by BHEL

1.9.4 BHEL reserves the right of forfeiture of Security Deposit in addition to other claims and penalties in the event of the Contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract. BHEL reserves the right to set off the Security Deposit against any claims of other contracts with BHEL.

1.10. REFUND OF SECURITY DEPOSIT

50% of the security deposit may be refunded on completion of the work after payment of the final bill and the balance 50% of the security deposit is refunded only after the expiry of the maintenance period from date of completion of work as stipulated in the contract concerned.

1.10.1 DEFECTS LIABILITY PERIOD:

The contractor shall be responsible to make good and remedy at his own expenses within such period as may be stipulated by the Engineer-in-charge, any defect which may develop or may be noticed before the expiry of the maintenance period of six months or as stipulated in NIT hereto from the certified date of completion and intimation of which has been sent to the contractor within seven days of the expiry of the said period by a letter sent by hand delivery or by registered post or Email. If contractor fails to attend to the above, defect will be rectified at contractor's risk & cost and same will be deducted from the security deposit/payable amounts available with BHEL.

1.11. BANK GUARANTEES

Where ever Bank Guarantees are to be furnished/submitted by the contractor, the following shall be complied with

i) Bank Guarantees shall be from Scheduled Banks / Public Financial Institutions as defined in the Companies Act.

ii) The Bank Guarantees shall be as per prescribed BHEL formats.

iii) It is the responsibility of the bidder to get the Bank Guarantees revalidated/extended for the required period (subject to a minimum period of six months), as per the advice of BHEL. BHEL shall not be liable for issue of any reminders regarding expiry of the Bank Guarantees.

iv) In case extension/further extensions of any Bank Guarantees are not required, the bidders shall ensure that the same is explicitly endorsed by BHEL

v) In case the Bank Guarantees are not extended before the expiry date, BHEL reserves the right to invoke the same by informing the concerned Bank in writing, without any advance notice/communication to the concerned bidder.

vi) Bidders to note that any corrections to Bank Guarantees shall be done by the issuing Bank, only through an amendment in an appropriate non judicial stamp paper.

vii) The Original Bank Guarantee shall be sent directly by the Bank to BHEL under Registered Post (Acknowledgement Due).

1.12. VALIDITY OF OFFER

The rates in the Tender shall be kept open for acceptance for a minimum period of Ninety (90) DAYS from latest due date of offer submission (including extension, if any). In case BHEL calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderers.

1.13 EXECUTION OF CONTRACT AGREEMENT

The successful tenderer's responsibility under this contract commences from the date of issue of the Letter of Intent by BHEL. The Tenderer shall submit an unqualified acceptance to the Letter of Intent/Award within the period stipulated therein.

The successful tenderer shall be required to execute an agreement in the prescribed form, with BHEL, within fifteen days (15 days) after the acceptance of the Letter of Intent/Award, and in any case before releasing the first running bill. The contract agreement shall be signed by a person duly authorized/empowered by the tenderer. The expenses for preparation of agreement document shall be borne by Tenderer.

1.14. REJECTION OF TENDER AND OTHER CONDITIONS

1.14.1 The acceptance of tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever:-

- a. To reject any or all of the tenders.*
- b. To split up the work amongst two or more tenderers as per NIT*
- c. To award the work in part if specified in NIT*
- d. In case of either of the contingencies stated in (b) and (c) above, the time for completion as stipulated in the tender shall be applicable.*

1.14.2 Conditional tenders, unsolicited tenders, tenders which are incomplete or not in the form specified or defective or have been materially altered or not in accordance with the tender conditions, specifications etc., are liable to be rejected.

1.14.3 Tenders are liable to be rejected in case of unsatisfactory performance of the tenderer with BHEL, or tenderer under suspension (hold/banning /delisted) by any unit / region / division of BHEL or tenderers who do not comply with the latest guidelines of Ministry/Commissions of Govt of India. BHEL reserves the right to reject a bidder in case it is observed that they are overloaded and may not be in a position to execute this job. The decision of BHEL will be final in this regard.

1.14.4 If a tenderer who is a proprietor expires after the submission of his tender or after the acceptance of his tender, BHEL may at their discretion, cancel such tender. If a partner of a firm expires after the submission of tender or after the acceptance of the tender, BHEL may then cancel such tender at their discretion, unless the firm retains its character.

1.14.5 BHEL will not be bound by any Power of Attorney granted by changes in the composition of the firm made subsequent to the execution of the contract. They may, however, recognize such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.

1.14.6 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract if awarded and forfeit the Earnest Money/Security Deposit/any other money due.

1.14.7 Canvassing in any form in connection with the tenders submitted by the Tenderer shall make his offer liable to rejection.

1.14.8 In case the Proprietor, Partner or Director of the Company/Firm submitting the Tender, has any relative or relation employed in BHEL, the authority inviting the Tender shall be informed, along with the Offer. Failing to do so, BHEL may, at its sole discretion, reject the tender or cancel the contract and forfeit the Earnest Money/Security Deposit.

1.14.9 The successful tenderer should not sub-contract part or complete work detailed in the tender specification undertaken by him without written permission of BHEL's Construction Manager/Site Incharge. The tenderer is solely responsible to BHEL for the work awarded to him.

1.14.10 The Tender submitted by a techno commercially qualified tenderer shall become the property of BHEL who shall be under no obligation to return the same to the bidder. However unopened price bids and late tenders shall be returned to the bidders after finalization of contract.

1.14.11 Unsolicited discount received after the due date and time of Bid Submission shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-I party, then the awarded price i.e contract value shall be worked out after considering the discount so offered.

1.14.12 BHEL shall not be liable for any expenses incurred by the bidder in the preparation of the tender irrespective of whether the tender is accepted or not.

1.15 BHEL Fraud Prevention Policy :

The bidder along with its associate/ collaborators/sub-contractors/ Sub-Vendors/ Consultants/service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice. Fraud prevention policy and list of Nodal officers shall be hosted on BHEL website, vendor portals of Units/Regions Internet.

CHAPTER-2

2.1 DEFINITION: The following terms shall have the meaning hereby assigned to them except where the context otherwise requires

- i) BHEL shall mean Bharat Heavy Electricals Limited, a company registered under Companies Act 1956, with its Registered Office at BHEL HOUSE, SIRI FORT, NEW DELHI – 110 049, or its Authorised Officers or its Site Engineers or other employees authorised to deal with any matters with which these persons are concerned on its behalf.*
- ii) “EXECUTIVE DIRECTOR” or ‘GROUP GENERAL MANAGER’ or “GENERAL MANAGER (Incharge)” or “GENERAL MANAGER” shall mean the Officer in Electronics Division, Mysore road, Bengaluru-560026*
- iii) “COMPETENT AUTHORITY” shall mean Executive Director or Group General Manager or General Manager (In-charge) or General Manager or BHEL Officers who are empowered to act on behalf of the Executive Director or General Manager (In-charge) or General Manager of BHEL.*
- iv) “ENGINEER” or “ENGINEER IN CHARGE” shall mean an Officer of BHEL as may be duly appointed and authorized by BHEL to act as “Engineer” on his behalf for the purpose of the Contract, to perform the duty set forth in this General Conditions of Contract and other Contract documents. The term also includes ‘CONSTRUCTION MANAGER’ or ‘SITE INCHARGE’ as well as Officers*
- v) “SITE” shall mean the places or place at which the plants/equipment are to be erected and services are to be performed as per the specification of this Tender.*
- vi) “CLIENT OF BHEL” or “CUSTOMER” shall mean the project authorities with whom BHEL has entered into a contract for supply of equipment or provision of services.*
- vii) “CONTRACTOR” shall mean the successful Bidder/Tenderer who is awarded the Contract and shall include the Contractor’s successors, heirs, executors, administrators and permitted assigns.*

viii) *“CONTRACT” or “CONTRACT DOCUMENT” shall mean and include the Work Order, Contract Agreement, the accepted appendices of Rates, Schedules, Quantities if any, General Conditions of Contract, Special Conditions of Contract, Instructions to the Tenderers, Drawings, Technical Specifications, the Special Specifications if any, the Tender documents, subsequent amendments mutually agreed upon and the Letter of Intent/Acceptance issued by BHEL. Any conditions or terms stipulated by the contractor in the tender documents or subsequent letters shall not form part of the contract unless, specifically accepted in writing by BHEL in the Letter of Intent/Award and incorporated in the agreement.*

ix) *“GENERAL CONDITIONS OF CONTRACT” shall mean the ‘Instructions to Tenderers’ and ‘General Conditions of Contract’ pertaining to the work for which above tenders have been called for.*

x) *“TENDER SPECIFICATION” or “TENDER” or “TENDER DOCUMENTS” shall mean General Conditions, Common Conditions, Special Conditions, Price Bid, Rate Schedule, Technical Specifications, Appendices, Annexures, Corrigendum’s, Amendments, Forms, procedures, Site information, etc and drawings/documents pertaining to the work for which the tenderers are required to submit their offers. Individual specification number will be assigned to each Tender Specification.*

xi) *“LETTER OF INTENT” shall mean the intimation by a Post/Fax/email to the tenderer that the tender has been accepted in accordance with provisions contained in the letter. The responsibility of the contractor commences from the date of issue of this letter and all terms and conditions of the contract are applicable from this date.*

xii) *“COMPLETION TIME” shall mean the period by ‘date/month’ specified in the ‘Letter of Intent/Award’ or date mutually agreed upon for handing over of the intended scope of work, the erected equipment/plant which are found acceptable by the Engineer, being of required standard and conforming to the specifications of the Contract.*

xiii) *“PLANT” shall mean and connote the entire assembly of the plant and equipment’s covered by the contract.*

xiv) *“EQUIPMENT” shall mean equipment, machineries, materials, structural, electrical and other components of the plant covered by the contract.*

xv) *“TESTS” shall mean and include such test or tests to be carried out on the part of the contractor as are prescribed in the contract or considered necessary by BHEL, in order to ascertain the quality, workmanship, performance and efficiency of the contractor or part thereof.*

xvi) *“APPROVED”, “DIRECTED” or “INSTRUCTED” shall mean approved, directed or instructed by BHEL.*

xvii) *“WORK or CONTRACT WORK” shall mean and include supply of all categories of labour, specified consumables, tools and tackles and Plants required for complete and satisfactory site transportation, handling, stacking, storing, erecting, testing and commissioning of the equipment’s to the entire satisfaction of BHEL.*

xviii) *“SINGULAR AND PLURALS ETC” words carrying singular number shall also include plural and vice versa, where the context so requires. Words imparting the masculine Gender shall be taken to include the feminine Gender and words imparting persons shall include any Company or Associations or Body of Individuals, whether incorporated or not.*

xix) *“HEADING” – The heading in these General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken as instructions thereof or of the contract.*

xx) *“MONTH” shall mean calendar month unless otherwise specified in the Tender.*

xxi) *Day’ or ‘Days’ unless herein otherwise expressly defined shall mean calendar day or days of twenty four (24) hours each. A week shall mean continuous period of seven (7) days.*

xxii) *“COMMISSIONING” shall mean the synchronization testing and achieving functional operation of the Equipment with associated system after all initial adjustments, trials, cleaning, re-assembly required at site if any, have been completed and Equipment with associated system is ready for taking into service.*

xxiii) *“WRITING” shall include any manuscript type written or hand written or printed statement or electronically transmitted messages, under the signature or seal or transmittal of BHEL.*

xxiv) *“TEMPORARY WORK” shall mean all temporary works for every kind required in or for the execution, completion, maintenance of the work.*

xxv) *‘CONTRACT PRICE’ or ‘CONTRACT VALUE’ shall mean the sum including applicable taxes mentioned in the LOI/LOA/Contract Agreement subject to such additions thereto or deductions there from as may be made under provisions hereinafter contained*

xxvi) *“COMMENCEMENT DATE” or “START DATE” shall mean the commencement/start of work at Site as per terms defined in the Tender*

xxvii) *“SHORT CLOSING” or “FORE CLOSING” of Contract shall mean the premature closing of Contract, for reasons not attributable to the contractor and mutually agreed between BHEL and the contractor*

xxviii) *“TERMINATION” of Contract shall mean the pre mature closing of contract due to reasons as mentioned in the contract*

2.2 LAW GOVERNING THE CONTRACT AND COURT JURISDICTION

The contract shall be governed by the Law for the time being in force in the Republic of India. The Civil Court having original Civil Jurisdiction at Bengaluru, shall alone have exclusive jurisdiction in regard to all claims in respect of the Contract. No other Civil Court shall have jurisdiction in case of any dispute, under this contract

2.3 ISSUE OF NOTICE

2.3.1 Service of notice on contractor: Any notice to be given to the Contractor under the terms of the contract shall be served by sending the same by Registered Post / Speed Post / FAX / Email to or leaving the same at the Contractor's last known address of the principal place of business (or in the event of the contractor being a company, to or at its Registered Office). In case of change of address, the notice shall be served at changed address as notified in writing by the Contractor to BHEL. Such posting or leaving of the notice shall be deemed to be good service of such notice and the time mentioned to the condition for doing any act after notice shall be reckoned from the date so mentioned in such notice.

2.3.2 Service of notice on BHEL Any notice to be given to BHEL in-charge under the terms of the Contract shall be served by sending the same by post or Email or leaving the same at BHEL address or changed address as notified in writing by BHEL to the Contractor.

2.4 USE OF LAND

No land belonging to BHEL or their Customer under temporary possession of BHEL shall be occupied by the contractor without written permission of BHEL.

2.4.1 STORES AND MATERIALS:

The contractor shall, at his own expense, supply all stores and materials required for the contract, other than those which may be provided by BHEL at the rates detailed therein subject to their availability at the place of issue indicated therein. All stores and materials to be supplied by the Contractor shall be of the best kind as described in the Specifications and the Contractor shall, if required by the Engineer –in- charge furnish him with proof to his satisfaction that the store and materials so comply with the specifications.

The contractor shall, at his own expense and without delay, supply samples of stores and materials proposed to be used in the execution of the work for the approval of the Engineer-in charge, who may reject all stores and materials not corresponding either in quality or character to the approved samples.

In the case of stores provided by BHEL, the Contractor shall bear the cost of loading, transporting to site, unloading, storing under cover as required, assembling & jointing the several parts together as necessary and incorporating & fixing these stores & materials in the work, including all preparatory work of whatever description that may be required, and closing, preparing, loading and returning empty cases or containers to the place of issue without any extra charges.

Contractor is responsible for safe & secure storage of above material.

2.4.2 PATENT RIGHTS:

The contractor shall fully indemnify BHEL, or the agent, servant, or employee of BHEL, against any action, claim or proceeding relating to infringement or the use of any patent or design or any alleged patent or design rights, and shall pay any royalties which may be payable in respect of any article/ or part thereof included in the contract.

In the event of any claims being made or action brought against BHEL, or any agent, or servant or employee of BHEL., in respect of any of the matters aforesaid, the contractor shall not apply when such increment has taken place in complying with the specific directions issued by the BHEL but the contractor shall pay any royalties payable in respect of any such use.

2.4.3 WATER :

The contractor shall allow in his tender and provide at his cost all water required for the work or his employees on the work, together with all pipes and fittings or other means that may be necessary or required to ensure a proper and ample supply of water for all purpose connected with the work.

In the event of a provision existing in the Tender documents for supply of water on payment by BHEL, water will be supplied from the BHEL supply System, or other sources at any points fixed by the Site Engineer/ Engineer-in-charge on the site of work. The contractor shall make necessary arrangement for lifting, pumping, carrying or conveying the water as required at his own cost. The levy of water charges to be borne by the Contractor in such case shall be specifically mentioned in the Tender documents.

2.4.4 TEMPORARY WORKSHOPS, STORES ETC :

The Contractor shall, during the progress of the work provide, erect and maintain at his own expense all necessary temporary workshops, store, offices, toilets etc., required for the proper and efficient execution of the work. The planning, siting and erection of these building shall have the approval of the Engineer-in-charge and the Contractor shall at all times keep them in a clean and sanitized condition to the entire satisfaction of the Engineer-in-charge.

On completion of the work all such temporary buildings shall be cleared and the site restored to its original state in a clean and tidy condition to the entire satisfaction of the Engineer-in-charge.

2.5 COMMENCEMENT OF WORK

2.5.1 Time is essence of contract and is specified in the tender document or in each individual work order.

2.5.2 The contractor shall commence the work within seven(07) days from LOI/work order or as intimated by BHEL and shall proceed with the same with due expedition without delay.

2.5.3 If the contractor fails to start the work within stipulated time as per LOI or as intimated by BHEL, then BHEL at its sole discretion will have the right to cancel the contract. The Earnest Money and/or Security Deposit with BHEL will stand forfeited without any further reference to him without prejudice to any and all of BHEL's other rights and remedies in this regard.

2.5.4 All the work shall be carried out under the direction and to the satisfaction of BHEL.

2.6 MEASUREMENT OF WORK AND MODE OF PAYMENT:

2.6.1 All payments due to the contractors shall be made by electronic mode only, unless otherwise found operationally difficult.

2.6.2 For progress running bill payments: - The Contractor shall present detailed measurement sheets in triplicate, duly indicating all relevant details based on technical documents and connected drawings for work done during the month/period under various categories in line with terms of payment as per contract. The basis of arriving at the quantities, weights shall be relevant documents and drawings released by BHEL. These measurement sheets shall be prepared jointly with BHEL Engineers and signed by both the parties.

2.6.3 These measurement sheets will be checked by BHEL Engineer and quantities and percentage eligible for payment under various groups shall be decided by BHEL Engineer. The abstract of quantities and percentage so arrived at based on the terms of payment shall be entered in Measurement Book and signed by both the parties.

2.6.4 Based on the above quantities, contractor shall prepare the bills in prescribed format and work out the financial value. These will be entered in Measurement Book and signed by both the parties. Payment shall be made by BHEL after effecting the recoveries due from the contractor.

2.6.5 All recoveries due from the contractor for the month/period shall be effected in full from the corresponding running bills unless specific approval from the competent authorities is obtained to the contrary.

2.6.6 Measurement shall be restricted to that portion of work for which it is required to ascertain the financial liability of BHEL under this contract.

2.6.7 The measurement shall be taken jointly by persons duly authorized on the part of BHEL and by the Contractor.

2.6.8 The Contractor shall bear the expenditure involved if any, in making the measurements and testing of materials to be used/used in the work. The contractor shall, without extra charges, provide all the assistance with appliances and other things necessary for measurement.

2.6.9 If at any time due to any reason whatsoever, it becomes necessary to re-measure the work done in full or in part, the expenses towards such re measurements shall be borne by the contractor unless such re measurements are warranted solely for reasons not attributable to contractor.

2.6.10 Passing of bills covered by such measurements does not amount to acceptance of the completion of the work measured. Any left out work has to be completed, if pointed out at a later date by BHEL.

2.6.11 Final measurement bill shall be prepared in the final bill format prescribed for the purpose based on the certificate issued by BHEL Engineer that entire works as stipulated in tender specification has been completed in all respects to the entire satisfaction of BHEL. Contractor shall give unqualified "No Claim" Certificate. All the tools and tackles loaned to him should be returned in satisfactory condition to BHEL. The abstract of final quantities and financial values shall also be entered in the Measurement Books and signed by both parties to the contract. The Final Bill shall be prepared and paid within a reasonable time after completion of work.

2.7 RIGHTS OF BHEL

BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the contractor for any compensation.

2.7.1 To withdraw any portion of work and/or to restrict/alter quantum of work as indicated in the contract during the progress of work and get it done through other agencies to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergent reasons/ BHEL's obligation to its customer.

2.7.2 To terminate the contract or get any part of the work done through other agency or deploy BHEL's own/hired/otherwise arranged resources , at the risk and cost of the contractor after due notice of a period of two weeks by BHEL, in the event of:-

- i) Contractor's continued poor progress
- ii) Withdrawal from or abandonment of the work before completion of the work
- iii) Contractor's inability to progress the work for completion as stipulated in the contract
- iv) Poor quality of work
- v) Corrupt act of Contractor
- vi) Insolvency of the Contractor

vii) *Persistent disregard to the instructions of BHEL*

viii) *Assignment, transfer, sub-letting of contract without BHEL's written permission*

ix) *Non fulfillment of any contractual obligations / non-compliance of statutory requirements*

x) *In the opinion of BHEL, the contractor is overloaded and is not in a position to execute the job as per required schedule*

2.7.3 To meet the expenses including BHEL overheads of 35% & Liquidated damage/penalties arising out of "Risk & Cost" as explained above under Sl.No. 2.7.2. BHEL shall recover the amount from any money due from Contractor, from any money due to the Contractor including Security Deposit or by forfeiting any T&P or material of the contractor under this contract or any other contract of BHEL or by any other means or any combination thereof

2.7.4 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customer are terminated for any reason, as per mutual agreement.

2.7.5 To effect recovery from any amounts due to the contractor under this or any other contract or in any other form, the moneys BHEL is statutorily forced to pay to anybody, due to contractor's failure to fulfill any of his obligations. BHEL shall levy overheads of 35% on all such payments.

2.7.6 While every endeavor will be made by BHEL to this end, they cannot guarantee uninterrupted work due to conditions beyond their control. The Contractor will not be normally entitled for any compensation/extra payment on this account unless otherwise specified elsewhere in the contract.

2.7.7 In case the execution of works comes to a complete halt or reaches a stage wherein worthwhile works cannot be executed and there is no possibility of commencement of work for a period of not less than two months, due to reasons not attributable to the contractor and other than Force Majeure conditions, BHEL may consider permitting the contractor to demobilize forthwith and re mobilize at an agreed future date. Cost of such demobilization/remobilization shall be mutually agreed. ORC (Over run Charges) in such cases shall not be applicable for the period between the period of demobilization and re mobilisation. The duration of contract/time extension shall accordingly get modified suitably. In case of any conflict, BHEL decision in this regard shall be final and binding on the contractor.

2.7.8 In the unforeseen event of inordinate delay in receipt of materials, drawings, fronts, etc, due to which inordinate discontinuity of work is anticipated, BHEL at its discretion may consider contractor's request to short close the contract, provided that the balance works are minor vis a vis the scope of work envisaged as per the contract. At the point of requesting for

short closure, contractor shall establish that he has completed all works possible of completion and he is not able to proceed with the balance works due to constraints beyond his control. In such a case, the estimated value of the unexecuted portion of work as mutually agreed, shall however be reduced from the final contract value-

2.7.9 LIQUIDATED DAMAGES/PENALTY

COMPENSATION FOR DELAY:

If the contractor fails to maintain the required progress in terms of condition 2.10 or to complete the work and clear the site on or before the contracted or extended the period of completion, he shall, without prejudice to any other right or remedy of the BHEL on account of such breach, pay as agreed compensation an amount calculated as stipulated below

For unfinished anticipated value of work where finished portion is fit for use

Rate of compensation as follows:

- *Completion period (as originally stipulated) not exceeding 6 months.@ 1 percent per week*
- *Completion period (as originally stipulated) Exceeding 6 months and not exceeding 2 years...@ 0.5 percent per week*
- *Completion period (as originally stipulated) exceeding 2 years..... @ 0.25 percent per week*

Provided always that the total amount of compensation for delay to be paid under condition shall not exceed the under noted percentage of the anticipated contract value

- *Completion period (as originally stipulated) not exceeding 6 months.@ 10 percent of anticipated value of work*
- *Completion period (as originally stipulated) Exceeding 6 months and not exceeding 2 years...@ 7.5 percent of anticipated value of work*
- *Completion period (as originally stipulated) Exceeding 2 years.....@ 5 percent of anticipated value of work*

The amount of compensation may be adjusted or set off against any sum payable to the Contractor under this or any other contract with the BHEL.

2.7.10 POST TECHNICAL AUDIT OF WORK AND BILLS: *BHEL reserve the right to carry out a post-payment audit and technical examination of the work and final bill including all supporting vouchers, abstract etc., and to enforce recovery of any sums becoming due as a result thereof in the manner provided in the proceeding sub-paragraph's provided however that no such recovery shall be enforced after three years of passing the final bill*

2.8 RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF LOCAL LAWS, EMPLOYMENT OF WORKERS ETC.

The following are the responsibilities of the contractor in respect of observance of local laws, employment of personnel, payment of taxes etc. The subcontractor shall fully indemnify BHEL against any claims of whatsoever nature arising due to the failure of the contractor in discharging any of his responsibilities hereunder:

2.8.1 The contractor at all times during the continuance of this contract shall, in all his dealings with local labour for the time being employed on or in connection with the work, have due regard to all local festivals and religious and other customs.

2.8.2 The contractor shall comply with all applicable State and Central Laws, Statutory Rules, Maternity act, Regulations etc. such as contract labour(R&A) Act 1970, Minimum wage Act 1948, Payment of wages Act 1936,ESI Act 1948, EPF Act 1952, Employees' compensation Act 1923, Provision of Companies Act 1948 & rules thereof, The interstate Migrant Workmen 1979, The Karnataka Factories Rules 1969, Payment of Bonus Act 1965, Payment of Gratuity Act 1972. Child labour Prohibition act 1986, Karnataka Minimum Wage Act , Prevention of sexual harassment at work place Act 2013, Guidelines/notification related to Safai Karamchari Act , Equal Remuneration Act 1976, The company's instructions as issued from time to time in regard to working hours, wages, leaves, holidays etc. for labour as may be enacted by the Government during the tenure of the Contract and having force or jurisdiction at Site. The Contractor shall also give to the local Governing Body, Police and other relevant Authorities all such notices as may be required by the Law.

The contractor shall produce the following registers and forms:

- Form XIII- Register of work men employed by contractor(Rule 75)*
- Form XIV- Employment Card issued by contractor(Rule 76)*
- Form XVI- Muster Roll (Rule 78(1) (a)(i))*
- Form XVII- Register of Wages (Rule 78(1) (a)(i))*
- Form XVIII- Register of wages cum Muster Roll(in case of weekly payment)*
- Form XIX- Wage slip (Rule 78(b))*
- Form XX- Register of deduction for damages Or Loss Rule 78(1) (a)(ii)*
- Form XXI- Register of files Rule 78(1) (a)(ii)*
- Form XXII- Register of Advance Rule 78(1) (a)(ii))*
- Form XXIII- Register of Overtime Rule 78(1) (a)(iii))*
- Form XXIV- Return to be sent by the contractor to the Licensing officer (Rule 82(1))*

2.8.3 The contractor shall obtain independent License under the Contract Labour (Regulations and Abolition Act)as required from the concerned Authorities based on the certificate (Form-V) issued by the Principal Employer/Customer

2.8.4 The contractor shall pay all taxes, fees, license charges, deposits, duties, tolls, royalties, commission or other charges which may be levied on account of his operations in executing the contract.

2.8.5 While BHEL would pay the inspection fees and Registration fees of Boiler & explosive/Electrical Inspectorate, all other arrangements for site visits periodically by the Inspectorate to site, Inspection certificate etc. will have to be made by contractor. However, BHEL will not make any payment to the Inspectorate in connection with contractor's Welders/Electricians qualification tests etc.

2.8.6 Contractor shall be responsible for provision of Health and Sanitary arrangements (more particularly described in Contract Labour Regulation & Abolition Act), Safety precautions etc. as may be required for safe and satisfactory execution of contract.

2.8.7 The contractor shall be responsible for proper accommodation including adequate medical facilities for personnel employed by him.

2.8.8 The contractor shall be responsible for the proper behavior and observance of all regulations by the staff employed by him.

2.8.9 The contractor shall ensure that no damage is caused to any person/property of other parties working at site. If any such damage is caused, it is responsibility of the contractor to make good the losses or compensate for the same.

2.8.10 All the properties/equipment/components of BHEL/their Client loaned with or without deposit to the contractor in connection with the contract shall remain properties of BHEL/their Client.

2.8.11 The contractor shall use such properties for the purpose of execution of this contract. All such properties/equipment/components shall be deemed to be in good condition when received by the contractor unless he notifies within 48 hours to the contrary. The contractor shall return them in good condition as and when required by BHEL/their Client. In case of non-return, loss, damage, repairs etc, the cost thereof as may be fixed by BHEL Engineer will be recovered from the contractor

2.8.12 Any delay in completion of works/or non-achievement of periodical targets due to the reasons attributable to the contractor, the same may have to be compensated by the contractor either by increasing manpower and resources or by working extra hours and/or by working more than one shift. All these are to be carried out by the contractor at no extra cost.

2.8.13 The contractor shall arrange, coordinate his work in such a manner as to cause no hindrance to other agencies working in the same premises.

2.8.14 All safety rules and codes applied by the Client/BHEL at site shall be observed by the contractor without exception. The contractor shall be responsible for the safety of the equipment/material and works to be performed by him and shall maintain all light, fencing guards, slings etc. or other protection necessary for the purpose. Contractor shall also take such additional precautions as may be indicated from time to time by the Engineer with a view to prevent pilferage, accidents, fire hazards. Due precautions shall be taken against fire hazards and atmospheric conditions. Suitable number of Clerical staff, watch and ward, store keepers to take care of equipment/materials and construction tools and tackles shall be posted at site by the contractor till the completion of work under this contract. The contractor shall arrange for such safety devices as are necessary for such type of work and carry out the requisite site tests of handling equipment, lifting tools, tackles etc. as per prescribed standards and practices. Contractor has to ensure the implementation of Health, Safety and Environment (HSE) requirements as per directions given by BHEL/Customer. The contractor has to assist in HSE audit by BHEL/Customer and submit compliance Report. The contractor has to generate and submit record/reports as per HSE plan/activities as per instruction of BHEL/Customer. All tools, plant and equipment brought to the site shall become the property of BHEL and shall not be removed from the site without the prior written approval from BHEL. When the work is finally completed or the Contractor is determined for reasons other than the defaults of the contract, he shall forthwith remove from the site all tools, plants, equipment etc., (other than those as may have been provided by BHEL) and upon such removal, the same shall revert in, and become the property of the contractor.

2.8.15 The contractor will be directly responsible for payment of wages to his workmen on specified date of respective month declared as per applicable Labour Act. A pay roll sheet giving all the payments given to the workers and duly signed by the contractor's representative should be furnished to BHEL site for record purpose.

2.8.16 In case of any class of work for which there is no such specification as laid down in the contract, such work shall be carried out in accordance with the instructions and requirements of the Engineer.

2.8.17 Also, no idle charges will be admissible in the event of any stoppage caused in the work resulting in contractor's labour and Tools & Plants being rendered idle due to any reason at any time.

2.8.18 The contractor shall take all reasonable care to protect the materials and work till such time the plant/equipment has been taken over by BHEL or their Client whichever is earlier.

2.8.19 The contractor shall not stop the work or abandon the site for whatsoever reason of dispute, excepting force majeure conditions. All such problems/disputes shall be separately discussed and settled without affecting the progress of work. Such stoppage or abandonment shall be treated as breach of contract and dealt with accordingly

2.8.20 The contractor shall keep the area of work clean and shall remove the debris etc. while executing day-to-day work. Upon completion of work, the contractor shall remove from the vicinity of work, all scrap, packing materials, rubbish, unused and other materials and deposit them in places specified by the Engineer. The contractor will also demolish all the hutments, sheds, offices, etc. constructed and used by him and shall clean the debris. In the event of his failure to do so, the same will be arranged to be done by the Engineer and the expenses recovered from the contractor. If the work is executed in Factory premises, no hutment will be allowed.

2.8.21 The contractor shall execute the work in the most substantial and workman like manner in the stipulated time. Accuracy of work and timely execution shall be the essence of this contract. The contractor shall be responsible to ensure that the quality, assembly and workmanship conform to the dimensions and clearance given in the drawings and/ or as per the instructions of the Engineer.

2.8.22 The Contractor to note that some of BHEL's T&Ps/MMDs may not be insured. The Contractor will take necessary precautions and due care to protect the same while in his custody from any damage/ loss till the same is handed over back to BHEL. In case the damage / loss is due to carelessness/ negligence on the part of the contractor, the Contractor is liable to get them repair/ replaced immediately and in case of his failure to do so within a reasonable time, BHEL will reserve the right to recover the loss from the contractor.

2.8.23 The contractor shall provide all watchmen necessary, for the protection of the site, the work, the materials, the tools , plant, equipment and anything else lying on the site during the progress of the work. He shall solely be responsible for and shall take all reasonable and proper steps for protecting, securing , lighting and watching all places on or about the work and the site which may be dangerous to any person whom so ever.

2.8.24 **SITE DRAINAGE:** All water that may accumulate on the site during the process of the work, or in trenches and excavations shall be removed to the entire satisfaction of the Engineer-in-charge and at Contractors expense.

2.8.25 **INSPECTION OF THE WORK:** BHEL Officers concerned with the Contract shall have power at any time to inspect and examine any part of the work and the contractor shall give such facilities as may be required to given for such inspection and examination.

2.8.26 In case the contractor is required to undertake any work outside the scope of this contract, the rates payable shall be those mutually agreed upon if the item rates are not mentioned in existing contract

- i. For any item of wok required to be carried out after the contract has been awarded and which is not covered by Contractors Schedule but is covered by C.P.W.D. schedule of rates the rate payable for such a fresh item will be derived from updated C.P.W.D. schedule of rates by the method of proportion as follows:

- ii. Rate as per estimated updated C.P.W.D DSR and loading tender excess (plus or minus) on pro-rata basis for nearest analogous items. For other items rate as per estimated C.P.W.D DSR and loading tender excess(plus or minus)
- iii.If rates are not available in C.P.W.D. DSR, deviated item rates will be derived from market rate with 15% profit and overheads.

2.9 PROGRESS MONITORING, MONTHLY REVIEW AND PERFORMANCE EVALUATION

2.9.1 A detailed plan/programme for completion of the contractual scope of work as per the time schedule given in the contract shall be jointly agreed between BHEL and Contractor, before commencement of work . The above programme shall be supported by month wise deployment of resources viz Manpower, T&P, Consumables, etc. Progress will be reviewed periodically (Daily/Weekly/Monthly) vis a vis this jointly agreed programme. The Contractor shall submit periodical progress reports (Daily/Weekly/Monthly) and other reports/information including manpower, consumables, T&P mobilization etc as desired by BHEL.

2.9.2 Monthly progress review between BHEL and Contractor shall be based on the agreed programme as above, availability of inputs/fronts etc, and constraints if any, as per prescribed formats. Manpower, T&P and consumable reports as per prescribed formats shall be submitted by contractor every month. Release of RA Bills shall be contingent upon certification by BHEL Site Engineer of the availability of the above prescribed formats duly filled in and signed.

2.9.3 The burden of proof that the causes leading to any shortfall is not due to any reasons attributable to the contractor is on the contractor himself. The monthly progress review shall record shortfalls attributable to (i) Contractor, (ii) Force Majeure Conditions, and (iii) BHEL

2.10 TIME OF COMPLETION

2.10.1 Time is essence of the contract. The time schedule shall be as prescribed in the Contract. The time for completion shall be reckoned from the date of commencement of work at Site as certified by BHEL Engineers

2.10.2 The entire work shall be completed by the contractor within the time schedule or within such extended periods of time as may be allowed by BHEL under clause 2.11

2.11 EXTENSION OF TIME FOR COMPLETION

2.11.1 If the completion of work as detailed in the scope of work gets delayed beyond the contract period, the contractor shall request for an extension of the contract and BHEL at its discretion may extend the Contract.

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

UNPRICED PRICE BID (75MW GSECL)

Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
1	Topographical survey (UTM Grid System) shall have to be done of the proposed site at suitable grid interval(5M×5M or as directed by Engineer In-Charge) by total station equipment.The Contractor shall carry the Bench Mark from nearest GTS Bench Mark, or any other establish source like Railway station etc. as approved bythe Employer, by fly-levelling and establish two permanent bench marks (PBM) at site.All subsequent transfer of levels shall be carried out with respect to these PBMs. The work shall also include constructing permanent reference pillars at suitable locations as approved by the Employer. While carrying bench mark to project site level shall be established at least on one object like culvert etc along the route in every one km. These reference pillars shall be labelled permanently with their respective coordinates and reduced levels for future use. The Permanent Bench Marks and reference pillars shall be shown on the survey drawings. All necessary levels as entered in the field book have to be submitted along with precontour layout of the total site. Based on the above survey work a general layout drawing with clear demarcation showing boundary pillars, location of control room, array yard,approach road drainage, existing electrical Tower/ poles, and other structures detailing with elevation along with Bore hole detailing & other test locations with Co ordinates, Establishing(Setting out) the TBM points (min 15 pillars as per IRC025 page no 03 with painting) on plant area / periphery and over permanent structure like culverts etc.Two sets of drawings (Contour 0.5M)and survey reports (Scale: 1:10000) along with all relevant documents to be submitted in hard copy. Soft copy of the drawings in ACAD latest version, Survey details also shall be made available in CDs with GPS points of the key points as instructed by BHEL	Acres	347	1505.14	521,532
2	Mobilisation of necessary equipment,men & materials to the project site for carrying out the geotechnical investigation and demobilisation of the same after completion of all the field works etc.	(LS)	1	167238.00	167,238
3(a)	Location and making 150mm nominal diameter bore hole at various location upto required depth as per site condition maximum of 10 meter below ground level in all type of the soil including laterite/weathered soft rock using suitable approved method of boring including chesiling,clearing,providing casing pipes as required or as directed; perfoming standard penetration test at every 1.5m interval down to required depth below ground level (starting depth 0.5 m from ground level) and at change of strata and at the depth however undisturbed soil samples could not be collected; Bore hole location shall be identified and shown by BHEL prior to commencement	Running Meter	160	1170.63	187,301
3(b)	Perfoming standard penetration test and collecting of disturbed samples at every 1.5m interval down to 10 meter/as required depth below ground level and at change of strata at depths wherever undisturbed soil samples could not be collected; and back filling of bore holes with sand on completion of the same etc.,all complete as per specification.	No's	107	41.76	4,454
3 (c)	Core drilling (N×size) in rock upto a required depth of maximum of 6 meter to required depth below ground level using hydraulic feed rotary drill and double tube core barrel with diamond bit including collection of core samples.	Running Meter (if required only)	10	1672.38	16,724

UNPRICED PRICE BID (75MW GSECL)

Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
3(d)	performing SPT at locations where core recovery is less than 20%, maintaining continous record of core recovery and RQD, keeping the cores in wooden core boxes, transporting the cores to laboratory.Location shall be identified and shown by BHEL prior to commencement.	Each (if required only)	7	104.49	697
4(a)	Collection of undisturbed samples from bore holes are required	Each	113	25.08	2,843
4(b)	Collection of disturbed samples from bore holes are required	Each	113	25.08	2,843
5	Conducting electrical Resistivity Test(ERT) at various locations complete as per specification,drawings and as directed by the engineer- In-charge.	Each	60	2090.48	125,429
6	Conducting Laboratory test on soil samples at an approved laboratory including preparation of soil samples to determine the following properties etc.all complete as per specification.				-
6 (a)	Atterberg limits	Each	213	4.18	891
6 (b)	Dry and Bulk Density	Each	213	4.18	891
6 (c)	Moisture Content	Each	213	4.18	891
6 (d)	Sieve analysis including Hydrometer analysis	Each	213	4.18	891
6 (e)	Specific Gravity and Void ratio	Each	213	4.18	891
6 (f)	Direct Shear Test or Triaxial Test as applicable	Each	213	4.18	891
6 (g)	CBR Test & consolidation	Each	30	4.18	125
6 (h)	Shrinkage Limit Test	Each	213	4.18	891
6 (i)	Swell pressure test	Each	213	4.18	891
6 (j)	Unconfined Compressive strength	Each	213	4.18	891
7	Conducting Laboratory test on rock samples(if rock encountered including preparation of samples to determine the following properties etc.all complete as per specification.				-
7 (a)	Determination of RQD / Slake durability test	Each	13	4.18	56
7 (b)	UCC test (in-situ & saturated)	Each	13	4.18	56
7 (c)	Specific gravity test & Hardness	Each	13	4.14	55
7 (d)	Water absorbtion test & Unit Weight	Each	13	4.14	55
8	Preparation and submission of draft report in two copies and final report in five hard copies and two soft copies in CD's after the approval of draft report including all field records,laboratory test results,graphs,analysis of test results and suitable recommendation regarding type of foundation etc all complete as per specification etc.	LS	1	41809.50	41,810

UNPRICED PRICE BID (75MW GSECL)

Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
9	Chemical analysis of water as per IS-456-Scope to cover organic, Inorganic,sulphates,Chlorides,PHvalues,suspended matter,acids,alkalies etc. to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
10	Chemical Analysis -Soil As per relevant standard.Scope to cover content of sulphates,chlorides and PH value to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
11	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil For trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	50	99.75	4,988
12	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. Ordinary rock. For Trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	10	175.07	1,751
TOTAL AMOUNT (Rs)					1,089,317
QUOTE PERCENTAGE (%) ABOVE/BELOW (+/-) (OR) AT PAR TO TOTAL AMOUNT					XXXXX
QUOTED PERCENTAGE (%) IN WORDS ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					XXXXX
GST (As applicable)					
NOTE:					
1. CONTRACTOR SHOULD QUOTE PERCENTAGE (%) ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					
2. QUOTED PERCENTAGE (%) IS APPLICABLE ON ALL ITEM RATES UNIFORMLY.					

UNPRICED PRICE BID (10MW GNFC)

Conducting Topographical survey and soil Investigation works for 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
1	Topographical survey (UTM Grid System) shall have to be done of the proposed site at suitable grid interval(5M×5M or as directed by Engineer In-Charge) by total station equipment.The Contractor shall carry the Bench Mark from nearest GTS Bench Mark, or any other establish source like Railway station etc. as approved bythe Employer, by fly-levelling and establish two permanent bench marks (PBM) at site.All subsequent transfer of levels shall be carried out with respect to these PBMs. The work shall also include constructing permanent reference pillars at suitable locations as approved by the Employer. While carrying bench mark to project site level shall be established at least on one object like culvert etc along the route in every one km. These reference pillars shall be labelled permanently with their respective coordinates and reduced levels for future use. The Permanent Bench Marks and reference pillars shall be shown on the survey drawings. All necessary levels as entered in the field book have to be submitted along with precontour layout of the total site. Based on the above survey work a general layout drawing with clear demarcation showing boundary pillars, location of control room, array yard,approach road drainage, existing electrical Tower/ poles, and other structures detailing with elevation along with Bore hole detailing & other test locations with Co ordinates, Establishing(Setting out) the TBM points (min 15 pillars as per IRC025 page no 03 with painting) on plant area / periphery and over permanent structure like culverts etc.Two sets of drawings (Contour 0.5M)and survey reports (Scale: 1:10000) along with all relevant documents to be submitted in hard copy. Soft copy of the drawings in ACAD latest version, Survey details also shall be made available in CDs with GPS points of the key points as instructed by BHEL	Acres	55	1505.14	82,783
2	Mobilisation of necessary equipment,men & materials to the project site for carrying out the geotechnical investigation and demobilisation of the same after completion of all the field works etc.	(LS)	1	167238.00	167,238
3(a)	Location and making 150mm nominal diameter bore hole at various location upto required depth as per site condition maximum of 10 meter below ground level in all type of the soil including laterite/weathered soft rock using suitable approved method of boring including chesiling,cleaning,providing casing pipes as required or as directed; perfoming standard penetration test at every 1.5m interval down to required depth below ground level (starting depth 0.5 m from ground level) and at change of strata and at the depth however undisturbed soil samples could not be collected; Bore hole location shall be identified and shown by BHEL prior to commencement	Running Meter	25	1170.63	29,266
3(b)	Perfoming standard penetration test and collecting of disturbed samples at every 1.5m interval down to 10 meter/as required depth below ground level and at change of strata at depths wherever undisturbed soil samples could not be collected; and back filling of bore holes with sand on completion of the same etc.,all complete as per specification.	No's	17	41.76	696
3 (c)	Core drilling (N×size) in rock upto a required depth of maximum of 6 meter to required depth below ground level using hydraulic feed rotary drill and double tube core barrel with diamond bit including collection of core samples.	Running Meter (if required only)	5	1672.38	8,362

UNPRICED PRICE BID (10MW GNFC)

Conducting Topographical survey and soil Investigation works for 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
3(d)	performing SPT at locations where core recovery is less than 20%, maintaining continous record of core recovery and RQD, keeping the cores in wooden core boxes, transporting the cores to laboratory.Location shall be identified and shown by BHEL prior to commencement.	Each (if required only)	3	104.49	348
4(a)	Collection of undisturbed samples from bore holes are required	Each	20	25.08	502
4(b)	Collection of disturbed samples from bore holes are required	Each	20	25.08	502
5	Conducting electrical Resistivity Test(ERT) at various locations complete as per specification,drawings and as directed by the engineer- In-charge.	Each	15	2090.48	31,357
6	Conducting Laboratory test on soil samples at an approved laboratory including preparation of soil samples to determine the following properties etc.all complete as per specification.				-
6 (a)	Atterberg limits	Each	33	4.18	139
6 (b)	Dry and Bulk Density	Each	33	4.18	139
6 (c)	Moisture Content	Each	33	4.18	139
6 (d)	Sieve analysis including Hydrometer analysis	Each	33	4.18	139
6 (e)	Specific Gravity and Void ratio	Each	33	4.18	139
6 (f)	Direct Shear Test or Triaxial Test as applicable	Each	33	4.18	139
6 (g)	CBR Test & consolidation	Each	5	4.18	21
6 (h)	Shrinkage Limit Test	Each	33	4.18	139
6 (i)	Swell pressure test	Each	33	4.18	139
6 (j)	Unconfined Compressive strength	Each	33	4.18	139
7	Conducting Laboratory test on rock samples(if rock encountered including preparation of samples to determine the following properties etc.all complete as per specification.				-
7 (a)	Determination of RQD / Slake durability test	Each	7	4.18	28
7 (b)	UCC test (in-situ & saturated)	Each	7	4.18	28
7 (c)	Specific gravity test & Hardness	Each	7	4.14	28
7 (d)	Water absorbtion test & Unit Weight	Each	7	4.14	28
8	Preparation and submission of draft report in two copies and final report in five hard copies and two soft copies in CD's after the approval of draft report including all field records,laboratory test results,graphs,analysis of test results and suitable recommendation regarding type of foundation etc all complete as per specification etc.	LS	1	41809.50	41,810

UNPRICED PRICE BID (10MW GNFC)

Conducting Topographical survey and soil Investigation works for 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
9	Chemical analysis of water as per IS-456-Scope to cover organic, Inorganic,sulphates,Chlorides,PHvalues,suspended matter,acids,alkalies etc. to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
10	Chemical Analysis -Soil As per relevant standard.Scope to cover content of sulphates,chlorides and PH value to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
11	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil For trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	20	99.75	1,995
12	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. Ordinary rock. For Trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	10	175.07	1,751
TOTAL AMOUNT (Rs)					371,338
QUOTE PERCENTAGE (%) ABOVE/BELOW (+/-) (OR) AT PAR TO TOTAL AMOUNT					XXXXX
QUOTED PERCENTAGE (%) IN WORDS ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					XXXXX
GST (As applicable)					
NOTE:					
1. CONTRACTOR SHOULD QUOTE PERCENTAGE (%) ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					
2. QUOTED PERCENTAGE (%) IS APPLICABLE ON ALL ITEM RATES UNIFORMLY.					

EDN: PVSS: GSECL+GNFC: 75+10 MW: Topo/02,
Dated: 24-05-2019

PRICE BID

CONDUCTING TOPOGRAPHICAL SURVEY AND SOIL INVESTIGATION WORKS FOR 75MW GSECL PV POWER PLANT AT DHUVARAN, GUJARAT AND 10MW GNFC PV POWER PLANT AT GUJARAT SOLAR PARK, CHARANKA, GUJARAT

NAME OF BIDDER:
(AFFIX SEAL & SIGNATURE ON ALL PAGES OF PRICE BID)

PRICE BID (75MW GSECL)

Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
1	Topographical survey (UTM Grid System) shall have to be done of the proposed site at suitable grid interval(5M×5M or as directed by Engineer In-Charge) by total station equipment.The Contractor shall carry the Bench Mark from nearest GTS Bench Mark, or any other establish source like Railway station etc. as approved bythe Employer, by fly-levelling and establish two permanent bench marks (PBM) at site.All subsequent transfer of levels shall be carried out with respect to these PBMs. The work shall also include constructing permanent reference pillars at suitable locations as approved by the Employer. While carrying bench mark to project site level shall be established at least on one object like culvert etc along the route in every one km. These reference pillars shall be labelled permanently with their respective coordinates and reduced levels for future use. The Permanent Bench Marks and reference pillars shall be shown on the survey drawings. All necessary levels as entered in the field book have to be submitted along with precontour layout of the total site. Based on the above survey work a general layout drawing with clear demarcation showing boundary pillars, location of control room, array yard,approach road drainage, existing electrical Tower/ poles, and other structures detailing with elevation along with Bore hole detailing & other test locations with Co ordinates, Establishing(Setting out) the TBM points (min 15 pillars as per IRC025 page no 03 with painting) on plant area / periphery and over permanent structure like culverts etc.Two sets of drawings (Contour 0.5M)and survey reports (Scale: 1:10000) along with all relevant documents to be submitted in hard copy. Soft copy of the drawings in ACAD latest version, Survey details also shall be made available in CDs with GPS points of the key points as instructed by BHEL	Acres	347	1505.14	521,532
2	Mobilisation of necessary equipment,men & materials to the project site for carrying out the geotechnical investigation and demobilisation of the same after completion of all the field works etc.	(LS)	1	167238.00	167,238
3(a)	Location and making 150mm nominal diameter bore hole at various location upto required depth as per site condition maximum of 10 meter below ground level in all type of the soil including laterite/weathered soft rock using suitable approved method of boring including chesiling,clearing,providing casing pipes as required or as directed; perfoming standard penetration test at every 1.5m interval down to required depth below ground level (starting depth 0.5 m from ground level) and at change of strata and at the depth however undisturbed soil samples could not be collected; Bore hole location shall be identified and shown by BHEL prior to commencement	Running Meter	160	1170.63	187,301
3(b)	Perfoming standard penetration test and collecting of disturbed samples at every 1.5m interval down to 10 meter/as required depth below ground level and at change of strata at depths wherever undisturbed soil samples could not be collected; and back filling of bore holes with sand on completion of the same etc.,all complete as per specification.	No's	107	41.76	4,454
3 (c)	Core drilling (N×size) in rock upto a required depth of maximum of 6 meter to required depth below ground level using hydraulic feed rotary drill and double tube core barrel with diamond bit including collection of core samples.	Running Meter (if required only)	10	1672.38	16,724

PRICE BID (75MW GSECL)

Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
3(d)	performing SPT at locations where core recovery is less than 20%, maintaining continous record of core recovery and RQD, keeping the cores in wooden core boxes, transporting the cores to laboratory.Location shall be identified and shown by BHEL prior to commencement.	Each (if required only)	7	104.49	697
4(a)	Collection of undisturbed samples from bore holes are required	Each	113	25.08	2,843
4(b)	Collection of disturbed samples from bore holes are required	Each	113	25.08	2,843
5	Conducting electrical Resistivity Test(ERT) at various locations complete as per specification,drawings and as directed by the engineer- In-charge.	Each	60	2090.48	125,429
6	Conducting Laboratory test on soil samples at an approved laboratory including preparation of soil samples to determine the following properties etc.all complete as per specification.				-
6 (a)	Atterberg limits	Each	213	4.18	891
6 (b)	Dry and Bulk Density	Each	213	4.18	891
6 (c)	Moisture Content	Each	213	4.18	891
6 (d)	Sieve analysis including Hydrometer analysis	Each	213	4.18	891
6 (e)	Specific Gravity and Void ratio	Each	213	4.18	891
6 (f)	Direct Shear Test or Triaxial Test as applicable	Each	213	4.18	891
6 (g)	CBR Test & consolidation	Each	30	4.18	125
6 (h)	Shrinkage Limit Test	Each	213	4.18	891
6 (i)	Swell pressure test	Each	213	4.18	891
6 (j)	Unconfined Compressive strength	Each	213	4.18	891
7	Conducting Laboratory test on rock samples(if rock encountered including preparation of samples to determine the following properties etc.all complete as per specification.				-
7 (a)	Determination of RQD / Slake durability test	Each	13	4.18	56
7 (b)	UCC test (in-situ & saturated)	Each	13	4.18	56
7 (c)	Specific gravity test & Hardness	Each	13	4.14	55
7 (d)	Water absorbtion test & Unit Weight	Each	13	4.14	55
8	Preparation and submission of draft report in two copies and final report in five hard copies and two soft copies in CD's after the approval of draft report including all field records,laboratory test results,graphs,analysis of test results and suitable recommendation regarding type of foundation etc all complete as per specification etc.	LS	1	41809.50	41,810

PRICE BID (75MW GSECL)

Conducting Topographical survey and soil Investigation works for 75MW GSECL PV power plant at Dhuvaran, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
9	Chemical analysis of water as per IS-456-Scope to cover organic, Inorganic,sulphates,Chlorides,PHvalues,suspended matter,acids,alkalies etc. to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
10	Chemical Analysis -Soil As per relevant standard.Scope to cover content of sulphates,chlorides and PH value to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
11	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil For trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	50	99.75	4,988
12	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. Ordinary rock. For Trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	10	175.07	1,751
TOTAL AMOUNT (Rs)					1,089,317
QUOTE PERCENTAGE (%) ABOVE/BELOW (+/-) (OR) AT PAR TO TOTAL AMOUNT					
QUOTED PERCENTAGE (%) IN WORDS ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					
GST (As applicable)					
NOTE:					
1. CONTRACTOR SHOULD QUOTE PERCENTAGE (%) ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					
2. QUOTED PERCENTAGE (%) IS APPLICABLE ON ALL ITEM RATES UNIFORMLY.					

PRICE BID (10MW GNFC)

Conducting Topographical survey and soil Investigation works for 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
1	Topographical survey (UTM Grid System) shall have to be done of the proposed site at suitable grid interval(5M×5M or as directed by Engineer In-Charge) by total station equipment.The Contractor shall carry the Bench Mark from nearest GTS Bench Mark, or any other establish source like Railway station etc. as approved bythe Employer, by fly-levelling and establish two permanent bench marks (PBM) at site.All subsequent transfer of levels shall be carried out with respect to these PBMs. The work shall also include constructing permanent reference pillars at suitable locations as approved by the Employer. While carrying bench mark to project site level shall be established at least on one object like culvert etc along the route in every one km. These reference pillars shall be labelled permanently with their respective coordinates and reduced levels for future use. The Permanent Bench Marks and reference pillars shall be shown on the survey drawings. All necessary levels as entered in the field book have to be submitted along with precontour layout of the total site. Based on the above survey work a general layout drawing with clear demarcation showing boundary pillars, location of control room, array yard,approach road drainage, existing electrical Tower/ poles, and other structures detailing with elevation along with Bore hole detailing & other test locations with Co ordinates, Establishing(Setting out) the TBM points (min 15 pillars as per IRC025 page no 03 with painting) on plant area / periphery and over permanent structure like culverts etc.Two sets of drawings (Contour 0.5M)and survey reports (Scale: 1:10000) along with all relevant documents to be submitted in hard copy. Soft copy of the drawings in ACAD latest version, Survey details also shall be made available in CDs with GPS points of the key points as instructed by BHEL	Acres	55	1505.14	82,783
2	Mobilisation of necessary equipment,men & materials to the project site for carrying out the geotechnical investigation and demobilisation of the same after completion of all the field works etc.	(LS)	1	167238.00	167,238
3(a)	Location and making 150mm nominal diameter bore hole at various location upto required depth as per site condition maximum of 10 meter below ground level in all type of the soil including laterite/weathered soft rock using suitable approved method of boring including chesiling,cleaing,providing casing pipes as required or as directed; perfoming standard penetration test at every 1.5m interval down to required depth below ground level (starting depth 0.5 m from ground level) and at change of strata and at the depth however undisturbed soil samples could not be collected; Bore hole location shall be identified and shown by BHEL prior to commencement	Running Meter	25	1170.63	29,266
3(b)	Perfoming standard penetration test and collecting of disturbed samples at every 1.5m interval down to 10 meter/as required depth below ground level and at change of strata at depths whereever undisturbed soil samples could not be collected; and back filling of bore holes with sand on completion of the same etc.,all complete as per specification.	No's	17	41.76	696
3 (c)	Core drilling (N×size) in rock upto a required depth of maximum of 6 meter to required depth below ground level using hydraulic feed rotary drill and double tube core barrel with diamond bit including collection of core samples.	Running Meter (if required only)	5	1672.38	8,362

PRICE BID (10MW GNFC)

Conducting Topographical survey and soil Investigation works for 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
3(d)	performing SPT at locations where core recovery is less than 20%, maintaining continous record of core recovery and RQD, keeping the cores in wooden core boxes, transporting the cores to laboratory.Location shall be identified and shown by BHEL prior to commencement.	Each (if required only)	3	104.49	348
4(a)	Collection of undisturbed samples from bore holes are required	Each	20	25.08	502
4(b)	Collection of disturbed samples from bore holes are required	Each	20	25.08	502
5	Conducting electrical Resistivity Test(ERT) at various locations complete as per specification,drawings and as directed by the engineer- In-charge.	Each	15	2090.48	31,357
6	Conducting Laboratory test on soil samples at an approved laboratory including preparation of soil samples to determine the following properties etc.all complete as per specification.				-
6 (a)	Atterberg limits	Each	33	4.18	139
6 (b)	Dry and Bulk Density	Each	33	4.18	139
6 (c)	Moisture Content	Each	33	4.18	139
6 (d)	Sieve analysis including Hydrometer analysis	Each	33	4.18	139
6 (e)	Specific Gravity and Void ratio	Each	33	4.18	139
6 (f)	Direct Shear Test or Triaxial Test as applicable	Each	33	4.18	139
6 (g)	CBR Test & consolidation	Each	5	4.18	21
6 (h)	Shrinkage Limit Test	Each	33	4.18	139
6 (i)	Swell pressure test	Each	33	4.18	139
6 (j)	Unconfined Compressive strength	Each	33	4.18	139
7	Conducting Laboratory test on rock samples(if rock encountered including preparation of samples to determine the following properties etc.all complete as per specification.				-
7 (a)	Determination of RQD / Slake durability test	Each	7	4.18	28
7 (b)	UCC test (in-situ & saturated)	Each	7	4.18	28
7 (c)	Specific gravity test & Hardness	Each	7	4.14	28
7 (d)	Water absorbtion test & Unit Weight	Each	7	4.14	28
8	Preparation and submission of draft report in two copies and final report in five hard copies and two soft copies in CD's after the approval of draft report including all field records,laboratory test results,graphs,analysis of test results and suitable recommendation regarding type of foundation etc all complete as per specification etc.	LS	1	41809.50	41,810

PRICE BID (10MW GNFC)

Conducting Topographical survey and soil Investigation works for 10MW GNFC PV power plant at Gujarat Solar park, Charanka, Gujarat

SL NO	DESCRIPTION OF THE WORK	UNIT	QTY	ITEM RATE (Excluding GST)	AMOUNT
9	Chemical analysis of water as per IS-456-Scope to cover organic, Inorganic,sulphates,Chlorides,PHvalues,suspended matter,acids,alkalies etc. to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
10	Chemical Analysis -Soil As per relevant standard.Scope to cover content of sulphates,chlorides and PH value to be done for five samples in the area as decided with BHEL site engineer	LS	1	1672.38	1,672
11	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil For trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	20	99.75	1,995
12	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. Ordinary rock. For Trial Pit (2*2*2.5), Relevant test to be done under above item no. 6	cum	10	175.07	1,751
TOTAL AMOUNT (Rs)					371,338
QUOTE PERCENTAGE (%) ABOVE/BELOW (+/-) (OR) AT PAR TO TOTAL AMOUNT					
QUOTED PERCENTAGE (%) IN WORDS ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					
GST (As applicable)					
NOTE:					
1. CONTRACTOR SHOULD QUOTE PERCENTAGE (%) ABOVE/BELOW (OR) AT PAR TO TOTAL AMOUNT					
2. QUOTED PERCENTAGE (%) IS APPLICABLE ON ALL ITEM RATES UNIFORMLY.					