

TENDER SPECIFICATION BHEL PSSR SCT 1812

For

Mainly Part of Super Structure Civil, Structural and Architectural Works, (Complete Civil Works where no Pile Beneath the Structure), of Coal Handling Plant & Ash Handling Plant area (Outside plant boundary) of Unit-1 & 2

At

2x660 MW Ennore SEZ Super Thermal Power Project, at Ash Dyke of North Chennai Thermal Power Station (NCTPS), Thiruvallur District, Tamil Nadu

VOLUME-I BOOK-I

TECHNOCOMMERCIAL BID - Consists of Book- I & Book- II

Book- I Consists of

- Notice Inviting Tender
- Volume-IA: Technical Conditions of Contract

Book-II consists of

- Volume-IB : Special conditions of Contract,
Rev 01 dated 1st June 2012
Amendment 01 dated 1st October, 2015
- Volume-IC : General conditions of Contract
Rev 01 dated 1st June 2012,
Amendment 03 dated 1st October, 2015
- Volume-ID : Forms & Procedures
Rev 01 dated 1st June 2012
Amendment 01 dated 1st October, 2015



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

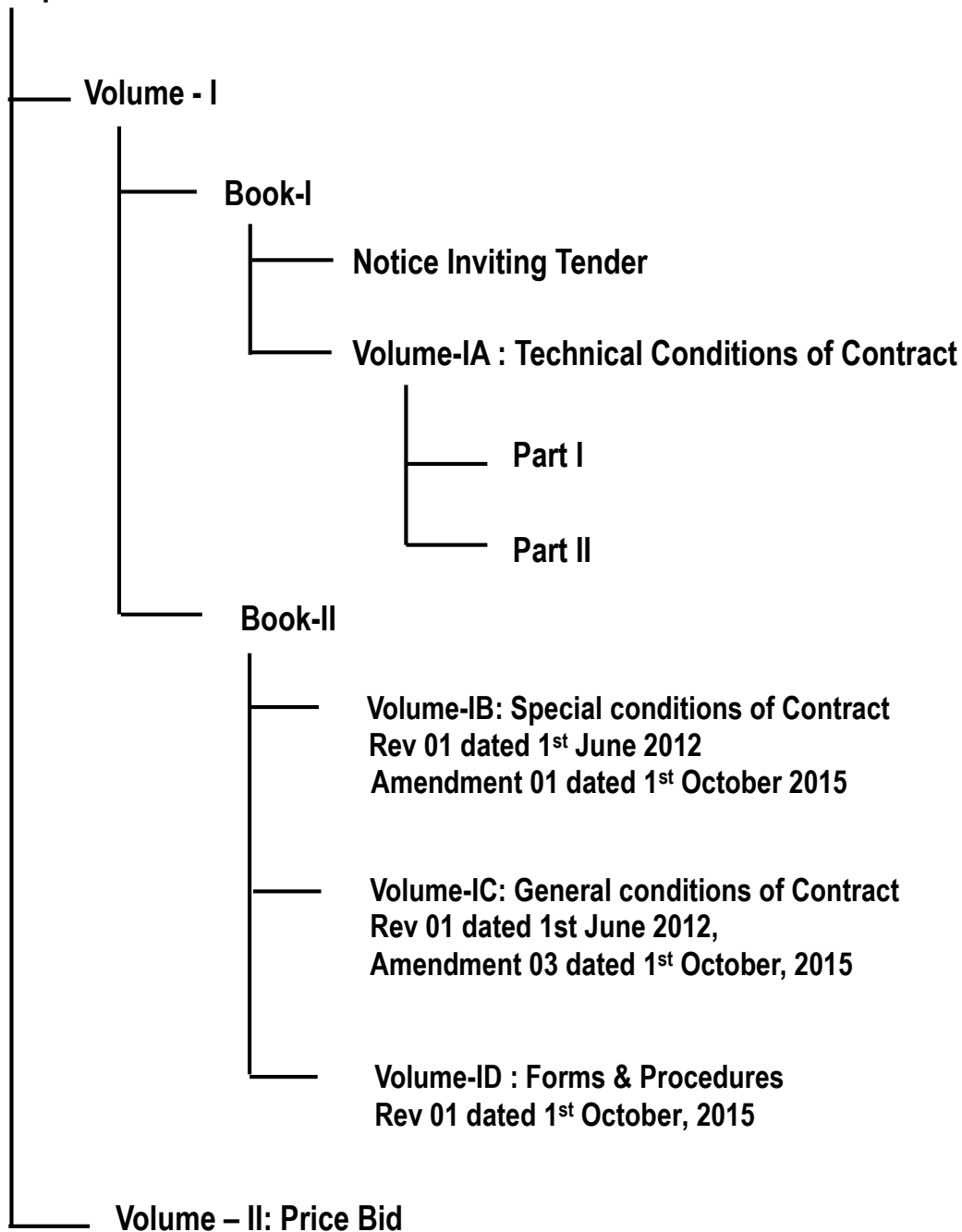
Power Sector – Southern Region

690, Anna Salai, Nandanam, Chennai – 600 035.

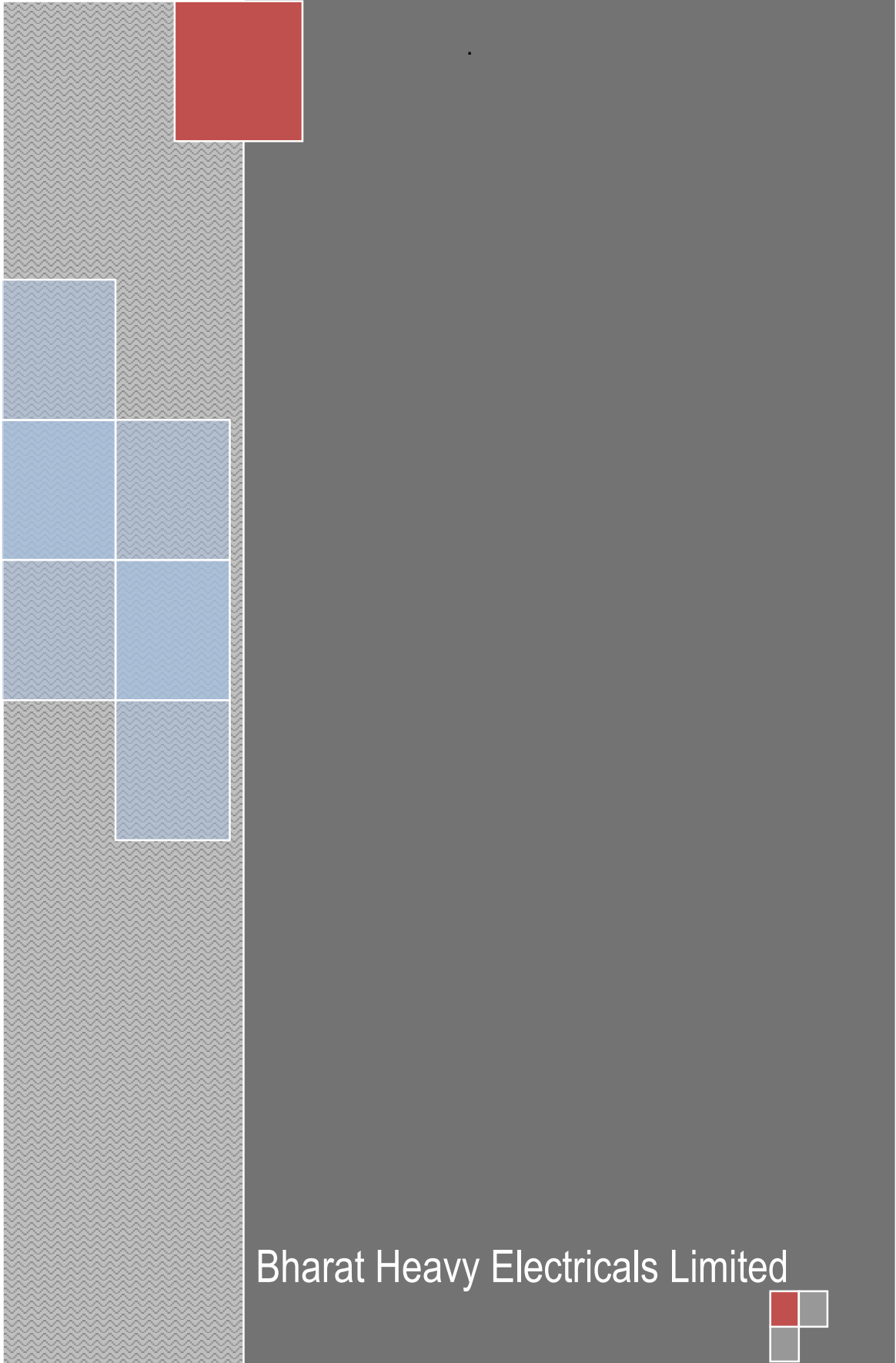
NOTICE INVITING TENDER

TENDER SPECIFICATION CONSISTS OF

Tender Specification



NOTICE INVITING TENDER



Tender Specification No.: BHEL PSSR SCT 1812

NOTICE INVITING TENDER

Ref: BHEL PSSR SCT 1812

Date: 31.03.2019

NOTICE INVITING TENDER (NIT)

Submission only through E-Procurement Portal

<https://bhel.abcprocure.com>

Note: However, Bidder may download Tender Documents from web sites

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To

Dear Sir / Madam

Sub: NOTICE INVITING TENDER

Online Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting PRE QUALIFICATION CRITERIA as mentioned in Annexure-I) **through E-Procurement Portal <https://bhel.abcprocure.com> only**, for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

1.0 Salient Features of NIT

Sl. No	ISSUE	DESCRIPTION
i)	Tender Number	BHEL PSSR SCT 1812
ii)	Broad Scope of job	Mainly Part of Super Structure Civil, Structural and Architectural Works, (Complete Civil Works where no Pile Beneath the Structure), of Coal Handling Plant & Ash Handling Plant area (Outside plant boundary) of Unit-1 & 2 At 2x660 MW Ennore SEZ Super Thermal Power Project, at Ash Dyke of North Chennai Thermal Power Station (NCTPS), Thiruvallur District, Tamil Nadu
iii)	DETAILS OF TENDER DOCUMENT	
A	Volume-IA	Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc
B	Volume-IB	Special conditions of Contract, Rev 01 dated 1st June 2012, Amendment 01 dated October 01, 2015
C	Volume-IC	General conditions of Contract

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		Rev 01 dated 1st June 2012, Amendment 03 dated October 01, 2015	
D	Volume-ID	Forms & Procedures Rev 01 dated 1st June 2012 Amendment 01 dated October 01,2015	Applicable
E	Volume-II	Price Schedule (Absolute value)	Applicable
iv)	Issue of Tender Documents	<p>1. This is an E-tender floated online through our E-Procurement Portal https://bhel.abcpocure.com</p> <p>2. Sale: Start: 01st April 2019 Close: Tender documents can be downloaded till Closing time for offer submission.</p> <p>3. From BHEL website (http://www.bhel.com ---> Tender Notifications) Tender documents for bidder's reference can be downloaded till due date of submission.</p>	Applicable
v)	Due Date & Time of Offer Submission	<p>Date: 22nd April, 2019, Time :15.00 Hrs Place: The bidder should submit their offer online in e-Procurement portal at https://bhel.abcpocure.com only. Offers are invited in two-parts only. Bidders are requested to upload their offer well in advance in order to avoid last minute congestion at this website. Hard copy bids or bids through E-mail / fax shall not be accepted.</p>	Applicable
vi)	Opening of Tender	<p>Date: 22nd April, 2019, Time :15.30 Hrs Notes: 1) In case the due date of opening of tender becomes a non-working day, tenders shall be opened on next working day at the same time. 2) Bidder may record their presence online, during tender opening. However this being an e-tender it shall be opened online</p>	Applicable

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vii)	EMD Amount	Rs.65,60,000/- (Rupees Sixty Five Lakh Sixty Thousand Only). - Refer Volume-I A Part-II Chapter-1 of Technical Conditions of Contract (Volume-I, Book-I) for mode of payment of Earnest Money Deposit (EMD) Note: Exemption from EMD for MSEs is not applicable for this tender. One time EMD not applicable for this tender.	Applicable
viii)	Cost of Tender	Rs.2,000/- (Rupees Two Thousand Only) Note: Exemption towards payment of Cost of Tender for MSEs is not applicable for this tender.	Applicable
ix)	Last Date for Seeking Clarification	Bidders may submit their queries in https://bhel.abcprocure.com at least 7 days before the due date of offer submission or two days before the scheduled date of pre-bid meeting whichever is earlier along with soft version also, addressing to undersigned & to others as per contact address given above.	Applicable
x)	Schedule of Pre Bid Discussion (PBD)	Date: 08th April, 2019 Time: 11.00AM at BHEL:PSSR:Chennai-35	Applicable
xi)	Integrity Pact & Details of Independent External Monitor (IEM)	Integrity Pact (IP) a) IP is a tool to ensure that activities and transactions between the company and its Bidders / Contractors are handled in a fair, transparent and corruption free manner. A panel of Independent External Monitors (IEMs) have been appointed to oversee implementation of IP in BHEL. The IP as per format given (refer Volume IA PART-II) of this tender is to be submitted (duly signed and stamped by the authorized signatory who signs in the offer) along with Techno Commercial Bid. Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other	Applicable

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	<p>words, entering into this pact would be a preliminary qualification. Details of IEM for this tender is furnished below:</p> <p>Mrs. Pravin Tripathi, IA & AS (Retd.) D- 243, Anupam Gardens, Lane IB, Neb Sarai, Sainik Farms, New Delhi- 110 068 Email: pravin.tripathi@gmail.com</p> <p>Shri D.R.S Chaudhary, IAS (Retd.) Flat No. L-202 & L-203 (1st Floor) Ansal Lake View Enclave, Shamlia Hills, Bhopal- 462013 (M.P.). Email ID: dilip.chaudhary@icloud.com</p> <p>b) Please refer section- 8 of the IP (refer the IP format) for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.</p> <p>Note: No routine correspondence shall be addressed to the IEM (Phone / Post / E mail) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification / issues shall be posted in https://bhel.abcprocure.com. Any other queries may be addressed directly to the tender issuing (Procurement) department as mentioned below:</p> <p><u>Level 1:</u> Name: Mr. Anil Kumar Dept.: Sub-Contracts Phone: 91 44 28286759 E-mail: anil.kr@bhel.in</p> <p><u>Level 2:</u> Name: Mr. Sandipan Biswas Dept.: Sub-Contracts Phone: 91 44 24330209 E-mail: bsandipan@bhel.in</p>	
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xii)	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (http://www.bhel.com → Tender Notifications) & portal https://bhel.abcpocure.com . These will not be published in the newspapers. Bidders to keep themselves updated with all such information. This also form part of tender hence the same shall be enclosed with their offer.	
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- 2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, **duly signed & stamped on each page, as part of offer. Rates / Price including discounts / rebates, if any, mentioned anywhere/ in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**
- 3.0 Cost of tender shall be remitted through, Electronic Fund Transfer credited in BHEL account or Banker's cheque or Pay order or Demand draft, in favour of BHEL.
- 4.0 Unless specifically stated otherwise, bidder shall deposit **Earnest Money Deposit (EMD) as mentioned in Volume IA, Part-II, Chapter-1** of Technical Conditions of Contract (Volume-I Book-I). Please note that 'One Time EMD' shall not be considered. For mode of payment of EMD, bidder shall refer Vol-1A Part-II Chapter-1 of Technical Conditions of Contract (Volume-I Book-I). **It is to be noted that proof of remittance for EMD shall be made available at BHEL PSSR Office prior to tender opening. One time EMD is not applicable.**
- 5.0 **Procedure for Submission of Tenders:** This is an E-tender floated online through our E-Procurement portal <https://bhel.abcpocure.com>. The bidder should respond by submitting their offer online only in our e-Procurement portal at <https://bhel.abcpocure.com>. Hard copy bid or bids through email/ fax shall not be accepted.

I. Pre-requisite for Offer Submission:-

Digital Certificate: To participate in an e-Tender, you need to have a Class-II/III Digital Signature Certificate (DSC) for Signing & Encryption (Required both digital signature certificate: Signing & Encryption) of bids

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issued by any of the valid Certifying Authorities (approved by Controller of Certifying Authorities) in India. Valid Digital Signature Certificate (DSC) must be installed in a computer system from where you want to access the website.

MINIMUM REQUIREMENT: (Mandatory)

- Computer with good Internet Connection (Minimum 256 kbps).
- Operating System should be Windows Vista / Windows 7 and above.
- Web Browsers: Internet Explorer 9.0 (32-bit Browser only) & above, Mozilla Firefox up to version 51 (32 bit /64 bit), Google Chrome 20.0 to 41.0
- System Access with Administrator Rights.

Bidder to also refer, the following documents available at E-Procurement portal <https://bhel.abcprocure.com> :

- Minimum System Requirements & Settings document for BHEL Users and Bidders.
- Bidder Manual for BHEL Bidders

II. Digital Signing of e-Tender

Tenders shall be uploaded with all relevant documents in PDF/zip format. The relevant tender documents should be uploaded by an authorized person having Class-II/III Digital Signature Certificate (DSC) for Signing & Encryption.

i) The Requirement:

- a. A PC with Internet connectivity &
- b. DSC (Digital Signature Certificate) Class-II/III Digital Signature Certificate (DSC) for Signing & Encryption)

Bidder to also refer, the Bidder Manual for BHEL Bidders available at E-Procurement portal <https://bhel.abcprocure.com>.

III. E-procurement service Provider:-

Address:

e-Procurement Technologies Limited (abcProcure),
Head Office: B-704/705, Wall Street - II, Opp. Orient Club,
Nr. Gujarat College, Ellis Bridge, Ahmedabad - 380 006, Gujarat (India)

Timing:

Indian Standard Time (+5:30 GMT): 10:00 AM - 07:00 PM (Monday to Friday)

Tender Specification No.: BHEL PSSR SCT 1812

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Indian Standard Time (+5:30 GMT): 10:00 AM - 04:00 PM (Saturday)

The contact details of the service provider are given below:

Contact: +91-79-68136819/809/862/867/823/872/842

E-Mail: Bhel.Support@abcProcure.com

Further contact details can be obtained by visiting the following webpage:

<https://bhel.abcprocure.com/EPROC/contactus>

IV. Documents Comprising the e-Tender

The tender shall be submitted online - ONLY EXCEPT TENDER FEE & EMD (in physical form) as mentioned below:

i) Technical Tender (Un priced Tender)

Bidders shall furnish the following information along with technical tender (preferably in pdf format):

- i). Tender Cost and Earnest Money Deposit (EMD) furnished in accordance with **Clause 3.0 & 4.0. of NIT.**
- ii). All Technical details (eg. Eligibility Criteria requested, Technical Conditions of Contract) should be attached in e-tendering module (**As detailed in Clause 6.0 below**), failing which the tender stands invalid & may be REJECTED.

ii) Price Bid:

- a. Prices are to be quoted as per the Price Bid format attached online on e-tender portal.
- b. The price should be quoted for the accounting unit indicated in the e-tender document.
- c. The item description, Quantity and Unit of measurement, as mentioned in Price bid uploaded by BHEL and subsequent revisions issued by BHEL, shall be binding on the bidder.

Note:

- i). It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.

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- ii). A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrant that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.
- iii). A tender, which does not fulfil any of the above requirements and/or gives evasive information / reply against any such requirement, shall be liable to be ignored and rejected.
- iv). In case offer is sent through hard copy / fax / telex / cable / electronically in place of e-tender, same shall not be considered.
- v). **Vendors are also requested to go through seller manual available on [www.bhel.abcprocure.com](https://bhel.abcprocure.com)**

V. DO NOT'S (Don'ts)

Bidders are requested NOT to submit the hard copy of the Bid. In case offer is sent through hard copy / fax / telex / cable / electronically in place of e-tender, the same shall not be considered. Also, uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.

6.0 DOCUMENTS TO BE UPLOADED & MODALITY OF UPLOADING in E-PROCUREMENT PORTAL <https://bhel.abcprocure.com> SHALL BE AS DETAILED BELOW

SI No	Description	Remarks
	Techno-Commercial Bid CONTAINING THE FOLLOWING:-	
i.	Covering letter / Offer forwarding letter of Tenderer.	To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
ii.	Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under SI No (i) above. <u>Note:</u>	To be uploaded under the form Techno-commercial Bid.

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	<p>1. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be attached along with document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained.</p> <p>2. BHEL reserves the right to accept / reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> <p>(i) In case of acceptance of the deviations, appropriate loading shall be done by BHEL</p> <p>(ii) In case of unacceptable deviations, BHEL reserves the right to reject the tender.</p>	<p>Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com</p>
iii.	<p>Supporting documents/ annexure/ schedules/ drawing etc. as required in line with Pre-Qualification criteria. (Technical & Financial)</p> <p>As detailed in Clause No. 25 of NIT, It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact Phone no, FAX no, etc.</p>	<p>To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com</p>
iv.	<p>All Amendments / Correspondences / Corrigenda / Clarifications / Changes / Errata etc. pertinent to this NIT.</p>	<p>To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com</p>

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v.	Integrity Pact Agreement (Duly signed by the authorized signatory) (As applicable)	To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
vi.	Duly filled-in annexures, formats etc. as required under this Tender Specification/ NIT	To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
vii.	Notice inviting Tender (NIT)	To be uploaded under the form Techno-commercial Bid.
viii.	Volume – I A : Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
ix.	Volume – I B : Special Conditions of Contract (SCC)	To be uploaded under the form Techno-commercial Bid.
x.	Volume – I C : General Conditions of Contract (GCC)	Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
xiii.	Any other details preferred by bidder with proper indexing.	To be uploaded under the form Techno-commercial Bid. Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com
Caution to Bidders:- The duly signed & stamped copies of Volume – I Book I & Volume I Book-II are to be attached under the form Techno-commercial Bid. Also for any further queries, Refer "Bidder Manual for BHEL Bidders" available at https://bhel.abcprocure.com .		

PRICE BID consisting of the following shall be attached as mentioned below	
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I	<p>Price/ Total Amount corresponding to the total works as specified in “Part C: Bill of Quantities” available in “Volume II – PRICE BID (latest Revision) shall be quoted in the Price Bid Form available in e-Procurement portal.</p> <p>Bidders to note that documents uploaded under the Price Bid Form shall be considered for commercial evaluation of offer</p>	<p>Refer “Bidder Manual for BHEL Bidders” available at https://bhel.abcprocure.com</p>
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SPECIAL NOTE:

- i. All documents / annexures submitted with the **offer shall be properly attached / entered / uploaded in the respective sections.** BHEL shall not be responsible for any missing documents.
 - ii. **Your offer & documents submitted along with offer shall be signed & stamped in each page by your authorized representative.** No overwriting/ correction in tender documents by bidders shall be allowed. However, if correction is unavoidable, the same may be signed by authorized signatory.
- 7.0 Deviation with respect to tender clauses and additional clauses / suggestions / in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.
- 8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).
- 9.0 **ASSESSMENT OF CAPACITY OF BIDDERS:**
- Bidder’s capacity for executing the job under tender shall be assessed ‘LOAD’ wise and ‘PERFORMANCE’ wise as per the following:**
- I. LOAD:** Load takes into consideration ALL the contracts of the Bidder under execution with BHEL Regions, irrespective of whether they are similar to the tendered scope or not. The cut off month for reckoning ‘Load’ shall be the third month preceding the month corresponding to the ‘latest date of bid submission’, in the following manner –
- (Note)** For example, if latest bid submission is in Jan 2017, then the

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'load' shall be calculated up to and inclusive of Oct 2016)

Total number of Packages in hand = Load (P)

Where 'P' is the sum of all unit wise identified packages (refer table-1) under execution with BHEL Regions as of the cut off month defined above, including packages yet to be commenced, excepting packages which are on HOLD due to reasons not attributable to Bidder.

II. PERFORMANCE: Here 'Monthly Performance' of the bidder for all the packages (under execution/ executed during the 'Period of Assessment' in all Power Sector Regions of BHEL) **SIMILAR** to the packages covered under the tendered scope, excepting packages not commenced shall be taken into consideration. The 'Period of Assessment' shall be 6 months preceding and including the cut off month. The cut off month for reckoning 'Period of Assessment' shall be the third month preceding the month corresponding to 'latest date of bid submission', in the following manner:

(Note: For example, if 'latest date of bid submission' is in Jan 2017, then the 'performance' shall be assessed for a 'six months' period up to and inclusive of Oct 2016 (i.e. from May 2016 to Oct 2016), for all the unit wise identified packages (refer Table I)

i). Calculation of Overall 'Performance Rating' for 'Similar Package / Packages' for the tendered scope under execution at Power Sector Regions for the 'Period of Assessment'

This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for all the similar Package / packages', divided by the total number of Package months for which evaluation should have been done, as per procedure below:

- a) $P_1, P_2, P_3, P_4, P_5, \dots, P_N$ etc. be the packages (under execution / executed during the 'Period of Assessment' in all Regions of BHEL) **SIMILAR** to the packages covered under the tendered scope, excepting packages not commenced. Total number of similar packages for all Regions = P_T (i.e. $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$)
- b) Number of Months ' T_1 ' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package P_1 . Similarly T_2 for package P_2 , T_3 for package P_3 , etc. for the

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tendered scope. Now calculate cumulative total months ' T_T ' for total similar Packages ' P_T ' for all Regions (i.e. $T_T = T_1 + T_2 + T_3 + T_4 + \dots T_N$)

- c) Sum ' S_1 ' of 'Monthly Performance Evaluation' Scores ($S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5}, \dots S_{1-T1}$) for similar package P_1 , for the 'period of assessment' ' T_1 ' (i.e. $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots S_{1-T1}$). Similarly, S_2 for package P_2 for period T_2 , S_3 for package P_3 for period T_3 etc. for the tendered scope for all Regions. Now calculate cumulative sum ' S_T ' of 'Monthly Performance Evaluation' Scores for total similar Packages ' P_T ' for all Regions (i.e. ' $S_T = S_1 + S_2 + S_3 + S_4 + S_5 + \dots S_N$ ')

- d) **Overall Performance Rating ' R_{BHEL} ' for the Similar Package / Packages** (under execution / executed during the 'Period of Assessment') in all the Power Sector Regions of BHEL

Aggregate of Performance scores for all similar packages in all the Regions

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Aggregate of months for each of the similar packages for which performance should have been evaluated in all the Regions.

$$= \frac{S_T}{T_T}$$

- e) **Bidders to note that the risk of non-evaluation or non-availability of the 'Monthly Performance Evaluation' reports as per relevant formats is to be borne by the Bidder.**

- f) **Table showing methodology for calculating 'a', 'b' and 'c' above**

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Sl. No.	Item Description	Details for all Regions							Total
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
1	Similar Packages for all Regions → (under execution/ executed during period of assessment)	P ₁	P ₂	P ₃	P ₄	P ₅	...	P _N	Total No of similar packages for all Regions = P_T ie Sum (Σ) of columns (iii) to (ix)
2	Number of Months for which 'Monthly Performance Evaluation' as per relevant formats should have been done in the 'period of assessment for corresponding similar Package (as in row 1)	T ₁	T ₂	T ₃	T ₄	T ₅	...	T _N	Sum (Σ) of columns (iii) to (ix) = T_T
3	Monthly performance scores for the corresponding period (as in Row 2)	S ₁₋₁ , S ₁₋₂ , S ₁₋₃ , S ₁₋₄ , ... S _{1-T1}	S ₂₋₁ , S ₂₋₂ , S ₂₋₃ , S ₂₋₄ , ... S _{2-T2}	S ₃₋₁ , S ₃₋₂ , S ₃₋₃ , S ₃₋₄ , ... S _{3-T3}	S ₄₋₁ , S ₄₋₂ , S ₄₋₃ , S ₄₋₄ , ... S _{4-T4}	S ₅₋₁ , S ₅₋₂ , S ₅₋₃ , S ₅₋₄ , ... S _{5-T5}	S _{N-1} , S _{N-2} , S _{N-3} , S _{N-4} , ... S _{N-TN}	-----
4	Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)	S ₁	S ₂	S ₃	S ₄	S ₅	...	S _N	Sum (Σ) of columns (iii) to (ix) = S_T

ii.) Calculation of Overall 'Performance Rating' (R_{BHEL}) in case at least six evaluation scores for 'similar Package / Packages' for the tendered scope ARE NOT AVAILABLE during the 'Period of Assessment'.

This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for ALL the packages, divided by the total number of Package months for which evaluation should have been done. 'R_{BHEL}' shall be calculated subject to availability of 'performance scores' for at

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least six 'package months' in the order of precedence below:

- 'Period of Assessment' i.e. six months preceding and including the cut-off month
- 12 months preceding and including the cut-off month
- 24 months preceding and including the cut-off month
- 36 months preceding and including the cut-off month

In case, ' R_{BHEL} ' cannot be calculated as above, then Bidder shall be treated as 'NEW VENDOR'. Further eligibility and qualification of this bidder shall be as per definition of 'NEW VENDOR' described in 'Explanatory Notes'.

- iii) Factor "L" assigned based on Overall Performance Rating (R_{BHEL}) at Power Sector Regions.:

Sl. No.	Overall Performance Rating (R_{BHEL})	Corresponding value of 'L'
1	≤ 60	NA
2	> 60 and ≤ 65	0.4
3	> 65 and ≤ 70	0.35
4	> 70 and ≤ 75	0.25
5	> 75 and < 80	0.2
6	≥ 80	NA

III. Assessment of Capacity of Bidder':

'Assessment of Capacity of Bidder' is based on the Maximum number of packages for which a vendor is eligible, considering the performance scores of similar packages, as below:

Max number of packages $P_{Max} = (R_{BHEL} - 60)$ divided by corresponding value of 'L' i.e. $(R_{BHEL} - 60)/L$

Note:

- In case the value of P_{Max} results in a fraction, the value of P_{Max} is to be rounded off to next whole number
- For $R_{BHEL} = 60$, $P_{Max} = '1'$
- For $R_{BHEL} \geq 80$, there will be no upper limit on P_{Max}

The Bidder shall be considered 'Qualified' as per 'Assessment of Capacity of Bidder' for the subject Tender if $P \leq P_{Max}$

(Where P is calculated as per clause 'i' above.)

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IV. Explanatory note:

i). Similar package means Boiler or ESP or Piping or Turbine or Civil or Structure or Electrical or C&I etc. at the individual level irrespective of rating of Plant and irrespective of whether the subject tender is a single package or as part of combined / composite packages. Normally Boiler, ESP, Piping, Turbine, Electrical, C&I, Civil, Structure etc. is considered individual level of package. For example, in case the tendered scope is a Boiler Vertical Package comprising of Boiler, ESP and Power Cycle Piping (i.e. the 'identified packages as per Table-1 below), the 'PERFORMANCE' part against Sl. No.. II above, needs to be evaluated considering all the identified packages (i.e. Boiler, ESP and Power Cycle Piping) and finally the Bidder's capacity to execute the tendered scope is assessed in line with III above.

ii). Identified Packages (Unit wise)

Table-1

Civil	Electrical & CI	Mechanical
i). Enabling works	i). Electrical	i). Boiler & Aux (All types including CW Piping if applicable)
ii). Pile and Pile Caps	ii). CI	ii). Power Cycle Piping / Critical Piping
iii). Civil Works including foundations	iii). Others (Elec & CI)	iii). ESP
iv). Structural Steel Fabrication & Erection		iv). LP Piping
v). Chimney		v). Steam Turbine Generator set & Aux
vi). Cooling Tower		vi). Gas Turbine Generator set & Aux
vii). Others (Civil)		vii). Hydro Turbine Generator set & Aux
		viii). Turbo Blower (including Steam Turbine)
		ix). Material Management
		x). Others (Mechanical)

iii). Bidders who have not been evaluated for at least six package months in the last 36 months preceding and including the Cut-off month in the online BHEL system for contractor performance evaluation in BHEL PS Regions, shall be considered "NEW VENDOR".

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A 'NEW VENDOR' shall be considered qualified subject to satisfying all other tender conditions

A 'NEW VENDOR' if awarded a job (of package / packages identified under this clause) shall be tagged as "FIRST TIMER" on the date of first LOI from BHEL.

The "FIRST TIMER" tag shall remain till execution of work for a period of not less than 09 months from the commencement of work of first package or completion of contract or availability of six evaluation scores including the previous scores (if any).

A Bidder shall not be eligible for the next job as long as the Bidder is tagged as "FIRST TIMER" excepting for the Tenders which have been opened on or before the date of the bidder being tagged as 'FIRST TIMER'.

After removal of 'FIRST TIMER' tag, the Bidder shall be considered 'QUALIFIED' for the future tenders subject to satisfying all other tender conditions including 'Assessment of Capacity of Bidders'.

- iv). Consequent upon applying the criteria of 'Assessment of Capacity of Bidders' detailed above on all the bidders qualified against Technical and Financial Qualification criteria, if the number of qualified bidders reduces to less than four, then for further processing of the Tender, BHEL at its discretion reserves the right to also consider the bidders who are "not qualified" as per criteria of 'Assessment of Capacity of Bidders' and for this, procedure described in following three options shall be followed:
- a) All the bidders having Overall Performance Rating ('RBHEL') ≥ 60 shall be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
 - b) If even after using option "a", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a", "First timer" bidders having average of available performance scores ≥ 60 upto and including the Cut Off month shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
 - c) If even after using option "a" and "b", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a" and "b", "First timer" bidders for whom

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no performance score is available in the system upto and including the Cut Off month, shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.

Note:- In case, the number of bidders qualified against Technical and Financial Qualification criteria itself is less than four, then all bidders (a)- having Overall Performance Rating ('RBHEL') ≥ 60 , (b)- "First timer" bidders having average of available performance scores ≥ 60 upto and including the Cut Off month, (c)- "First timer" bidders for whom no performance score is available in the system upto and including the Cut Off month, shall be considered qualified against criteria of 'Assessment of Capacity of Bidders' for further processing of tender.

- v). 'Under execution' shall mean works in progress as per the following:
- (a). Up to execution of 90% of anticipated Contract Value in case of Civil, MM, Structural and Turbo Blower Packages
 - (b). Up to Steam Blowing in case of Boiler / ESP / Piping Packages
 - (c). Up to Synchronization in all Balance Packages

Note: BHEL at its discretion can extend (or reduce in exceptional cases in line with Contract conditions) the period defined against (a), (b) and (c) above, depending upon the balance scope of work to be completed.

- vi). Contractor shall provide the latest contact details i.e. mail-ID and Correspondence Address to SCT Department, so that same can be entered in the Contractor Performance Evaluation System, and in case of any change / discrepancy same shall be informed immediately. Login Details for viewing scores in Contractor Performance Evaluation System shall be provided to the Contractor by SCT Department.
- vii). Performance Evaluation for Activity Month shall be completed in Evaluation Month (i.e. month next to Activity Month) or in rare cases in Post Evaluation Month (i.e. month next to Evaluation Month) after approval from Competent Authority. In case scores are not acceptable, Contractor can submit Review Request to GM Site / GM Project latest by 25th of Evaluation Month or 3 days after approval of score, whichever is later. However, acceptance / rejection of 'Review Request' solely depends on the discretion of GM Site / GM Project. After acceptance of Review Request, evaluation score shall be reviewed at site and the

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score after completion of review process shall be acceptable and binding on the contractor.

viii. Project on Hold due to reasons not attributable to bidder -

a. **Short hold:** Evaluation shall not be applicable for this period, however loading will be considered.

b. **Long hold:** Short hold for continuous six months and beyond or hold on account of Force Majeure shall be considered as Long Hold. Evaluation as well as Loading shall not be considered for this period.

- 10.0 Performance evaluation in Clause 9 above is applicable to Prime bidder and consortium partner (or Technical tie up partner) for their respective scope of work.
- 11.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc., before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.
- 12.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 13.0 BHEL may decide holding pre-bid discussion (PBD) with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 14.0 In the event of any conflict between requirement of any clause of this specification / documents / drawings / data sheets etc., or requirements of different codes / standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error / missing pages / other clerical errors in the tender documents,

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noticed must be pointed out before pre-bid meeting / submission of offer, else BHEL's interpretation shall prevail.

- 15.0 Unless specifically mentioned otherwise, bidder's quoted price shall be deemed to be in compliance with tender including PBD.
- 16.0 Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **if applicable**, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (1) above.**
- 17.0 The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the pre-qualification criteria specified in this NIT as per Annexure-1(as applicable) past performance etc., and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right NOT to consider offers of parties under HOLD.
- 18.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorized representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful / Disqualified bidders under intimation to the respective bidders.
- 19.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 20.0 BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on <http://www.bhel.com>) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case BHEL decides to go for RA.

Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers / contractors (as available on <http://www.bhel.com>).

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The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. **The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.**

If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers / contractors (as available on www.bhel.com).

- 21.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 22.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
- 23.0 Void
- 24.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 25.0 The bidder shall submit documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents / proofs, these shall be submitted immediately.
- 26.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 27.0 The offers of the bidders who are under suspension as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site " <http://www.bhel.com> → tender notification".
- 28.0 It may be noted that guidelines / rules in respect of 'Suspension of Business dealings' available on BHEL web site "<http://www.bhel.com> → Supplier

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- Registration”, ‘Vendor evaluation format’, Quality, Safety & HSE guidelines’, etc. may undergo change from time to time and the latest one shall be followed.
- 29.0 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.
- 30.0 Integrity commitment, performance of the contract and punitive action thereof:
- 30.1 Commitment by BHEL:
BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.
- 30.2 Commitment by Bidder / Supplier / Contractor:
- 30.2.1 The bidder / supplier / contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
- 30.2.2 The bidder / supplier / contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.
- 30.2.3 The bidder / supplier / contractor will perform / execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business / money / reputation, to BHEL.
- 30.3 If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder / supplier / contractor as per extant guidelines

NOTICE INVITING TENDER

- of the company available on <http://www.bhel.com> and / or under applicable legal provisions.
- 31.0 Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection.
All overwriting/cutting, etc will be numbered by bid opening officials and announced during bid opening.
- 32.0 For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated June 15, 2017 and May 28, 2018 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract / PO / WO against this NIT. In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and / or local content in respect of this procurement, same shall be applicable.
- 33.0 **Order of Precedence:**
In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:
- a. Amendments / Clarifications / Corrigenda / Errata etc. issued in respect of the tender documents by BHEL
 - b. Notice Inviting Tender (NIT)
 - c. Price Bid
 - d. Technical Conditions of Contract (TCC)—Volume-1A
 - e. Special Conditions of Contract (SCC) —Volume-1B
Rev. 01 Dt. 01 Jun 2012; Amendment: 01 Dt. 1st October 2015
 - f. General Conditions of Contract (GCC) —Volume-1C
Rev. 01 Dt. 01 Jun 2012; Amendment: 03 Dt. 1st October 2015
 - g. Forms and Procedures —Volume-1D
Rev. 01 Dt. 01 Jun 2012; Amendment: 01 Dt. 1st October 2015

For and on behalf of BHARAT HEAVY ELECTRICALS LTD

Additional General Manager / SCT

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Enclosure

1. Annexure-1: Pre Qualifying criteria.
2. Annexure-2: Check List.
3. Annexure-3 PRE QUALIFICATION CRITERIA - Technical
4. Annexure-4 Annexure to Pre-Qualifying Criteria.
5. Annexure-5 Tender Schedule.
6. Annexure-6 Declaration for Reverse auction.
7. Other documents as per this NIT.

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ANNEXURE - 1

PRE QUALIFYING CRITERIA

JOB	Mainly Part of Super Structure Civil, Structural and Architectural Works, (Complete Civil Works where no Pile Beneath the Structure), of Coal Handling Plant & Ash Handling Plant area (Outside plant boundary) of Unit-1 & 2 At 2x660 MW Ennore SEZ Super Thermal Power Project, at Ash Dyke of North Chennai Thermal Power Station (NCTPS), Thiruvallur District, Tamil Nadu
Tender No.	BHEL PSSR SCT 1812

Sl. No.	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document. Bidder must fill up this column as per applicability
A	Submission of Integrity Pact duly signed (if applicable) (Note: To be submitted by Prime Bidder & Consortium / Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)	Applicable	
B	<u>Technical</u> Refer Annexure 3	Applicable	To be filled in Annexure-4
C: C-1	<u>FINANCIAL</u> Turnover Bidders must have achieved an average annual financial turnover (Audited) of Rs.16,65,00,000/- (Rs. Sixteen Crore Sixty Five Lakh Only) or more, over last three Financial Years (FY) i.e 2015-16, 2016-17 and 2017-18.	Applicable	To be filled in Annexure-4

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C-2	Networth (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive	Applicable	To be filled in Annexure-4
C-3	Profit Bidder must have earned profit in any one of the three Financial Years as applicable in the last three Financial Years defined in 'C-1' above based on latest Audited Accounts.	Applicable	To be filled in Annexure-4
C4	Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking to this effect.	Applicable	
D	Assessment of Capacity of Bidder to execute the work as per Sl. No 9 of NIT (if applicable)	Applicable	By BHEL
E	Approval of Customer (if applicable) Note: Names of bidders (including consortium / Technical Tie up partners in case consortium bidding is permitted) who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval.	Applicable	By BHEL
F	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E	Applicable	By BHEL
G	Consortium criteria (if applicable)	Applicable	
<u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u>			
<ol style="list-style-type: none"> 1. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above along with all annexures. 2. In case audited financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i.e. total divided by three. 			

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	<p>3. If Financial Statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by Chartered Accountant.</p> <p>4. C-2:-NETWORTH: Shall be calculated based on the latest Audited Accounts as furnished for C-1 above. Net worth = Paid up share capital* + Reserves. (Net worth is required to be evaluated in case of companies) Note:- (*:Share Capital OR Partnership Capital OR Proprietor Capital as the case may be)</p> <p>5. C-3:- PROFIT : shall be PBT earned during any one of the three financial years as in C-1 above</p> <p>6. For evaluation of PQR, the credentials of the Bidder alone, and not that of the Group Company shall be considered.</p> <p>7. Completion date for achievement of the technical criteria specified in the Common QR should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work.</p> <p>8. Boiler means HRSG or WHRB or any other types of Steam Generator</p> <p>9. Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass, LP Bypass lines</p> <p>10. For the purpose of evaluation of the PQR, one MW shall be considered equivalent to 3.5TPH where ever rating of HRSG / BOILER is mentioned in MW. Similarly, where ever rating of Gas Turbine is mentioned in terms of Frame size, ISO rating in terms of MW shall be considered for evaluation.</p> <p>11. Scope for capital overhaul of STG shall cover Bearing Inspection work and overhauling of all cylinders of the Turbine unless otherwise specifically indicated in the PQR.</p> <p>12. In case the experience / PO / WO certificate enclosed by bidders do not have separate break up prices for the E&C portion of Electrical and CI Works, (i.e. the certificates enclosed are for composite order for supply and erection of Electrical & CI and other works if any), then value of Erection and Commissioning for the Electrical & CI portion shall be considered as 15% of the supply & erection of Electrical & CI, unless otherwise specifically indicated in the PQR.</p>
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NOTE:

- 1) BIDDER SHALL SUBMIT PRE-QUALIFICATION CRITERIA FORMAT (Refer Annexure-4), DULY FILLED-IN, SPECIFYING RESPECTIVE**

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ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC. IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

- 2) Authenticity of Credentials submitted by the Bidder against 'Pre-Qualifying Criteria' shall be verified from the Issuing Authority, by BHEL. In case, any credential(s) is/are found to be unauthentic, offer of the bidder is liable to be rejected. BHEL reserves the Right to initiate any further action as per the "Guidelines for Suspension of Business Dealings with Suppliers/Contractors" (Published in http://www.bhel.com/vender_registration/vender.php) and "Fraud Prevention Policy" (Published in <http://www.bhel.com/home.php>) as applicable.

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ANNEXURE - 2

CHECK LIST

NOTE: - Tenderers are required to either fill in or submit separately the following details. No column should be left blank.

1	Name and Address of the Tenderer																					
	Address of the Tenderer																					
2	Details about type of the Firm / Company																					
3a	Details of Contact person for this Tender: Name : Mr. / Ms. Designation: Telephone No: Mobile No: Fax No: E-mail ID:																					
3b	Details of alternate Contact person for this Tender: Name : Mr. / Ms. Designation: Telephone No: Mobile No: Fax No: E-mail ID:																					
4	EMD DETAILS (Remittance of EMD should be in line with Mode of Deposit as detailed in Volume-1A, Part-2, Chapter-1 of Technical Conditions of Contract (Volume-I Book-I))	<table border="1"><thead><tr><th>Sl. No</th><th>Ref No.</th><th>Detail</th><th>Amount</th><th>Remarks</th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>	Sl. No	Ref No.	Detail	Amount	Remarks															
Sl. No	Ref No.	Detail	Amount	Remarks																		
5	Validity of Offer	To be valid for six months from due date																				
		Applicability (By BHEL)	Bidder Reply																			

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6	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE-I & ANNEXURE-IV) is understood and filled with proper supporting documents referenced in the specified format	Applicable	Yes / No
7	Submission of Copy of Balance sheet and Audited profit and Loss Account for the last three years	Applicable	Yes / No
8	Submission of Copy of PAN Card	Applicable	Yes / No
9	Whether all pages of the offer documents are signed by the person authorized to sign this offer	Applicable	Yes / No
10	Whether all pages of the Tender documents including annexures, appendices etc., are read understood and signed	Applicable	Yes / No
11	Submission of Integrity Pact	Applicable	Yes / No
12	Submission of Declaration by Authorized Signatory	Applicable	Yes / No
13	Submission of No Deviation Certificate	Applicable	Yes / No
14	Submission of Declaration confirming knowledge about Site Conditions	Applicable	Yes / No
15	Submission of Declaration for relation in BHEL	Applicable	Yes / No
16	Submission of Non-Disclosure Certificate	Applicable	Yes / No
17	Submission of Copy Bank Account Details for E-Payment	Applicable	Yes / No
18	Submission of Capacity Evaluation of Bidder for current Tender	Applicable	Yes / No
19	Submission of Tie Ups / Consortium Agreement are submitted as per format	Applicable	Yes / No
20	Submission of Power of Attorney for Submission of Tender / Signing Contract Agreement	Applicable	Yes / No
21	Submission of Analysis of Unit rates	Applicable	Yes / No
22	Submission of Unquoted price bid	Applicable	Yes / No
23	Tabular column showing Category- wise, month wise, man power deployment sub package wise planned for the execution of the scope of works.	Applicable	Yes / No
24	Declaration by bidder for price opening through reverse auction (Refer Annexure-6 of Notice Inviting Tender)	Applicable	Yes / No
25	Copy of Organization Chart	Applicable	Yes / No
26	Copy of Registration/ Incorporation certificate, Partnership Deed (Certified by Notary Public) as applicable for firm	Applicable	Yes / No

NOTE:

NOTICE INVITING TENDER

1. STRIKE OFF 'YES' OR 'NO', AS APPLICABLE.
2. TENDER NOT ACCOMPANIED BY THE PRESCRIBED ABOVE APPLICABLE DOCUMENTS ARE LIABLE TO BE SUMMARILY REJECTED.
3. For Sl. No.11 to 20 above, the formats are available in "Volume I of Volume I Book-II – Forms and Procedures" of this tender specification.

DATE:

AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

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Annexure 3

PRE QUALIFICATION CRITERIA – Technical

B. It is proposed to indicate the following Qualification Criteria in the NIT

B 1 Technical Qualification Criteria: Bidder should have executed "Similar works" for any one of the following in the last seven years preceding the latest date of bid submission.

B.1.1 One (1) work of value not less than Rs44.45 Crore
(OR)

B.1.2 Two (2) works each of value not less than Rs.27.80 Crore
(OR)

B.1.3 Three (3) works each of value not less than Rs.22.20 Crore

Note for B.1.1 to B.1.3

- "Similar works" Means Piling or civil or structure or "Civil & Structural works" or RCC Chimney or RCC Cooling tower or RCC silo or Mill bunker or any combination of these.
- The Value of work is to be updated with indices for "All India Avg. Consumer Price index for industrial workers" and "Monthly Whole Sale Price Index for All Commodities" with base month as per last month of work execution and indexed up to three (3) months prior to the month of latest due date of bid submission.

$$P = R + \{0.425 \times R \times (XN - X0) / X0\} + \{0.425 \times R \times (YN - Y0) / Y0\}$$

Where P= Updated value of work

R= Value of executed work

XN= All India Avg. Consumer Price index for industrial workers for the month, three months prior to the month of latest date of bid submission (eg. If latest bid submission date is 03-Apr-17, then bid submission month shall be reckoned as April '17 and index for Jan '17 shall be considered).

X0= All India Avg. Consumer Price index for industrial workers for last month of work execution.

YN= Monthly Whole Sale Price Index for All Commodities for the month, three months prior to the month of latest date of bid submission (eg. If latest bid

NOTICE INVITING TENDER

submission date is 03-Apr-17, then bid submission month shall be reckoned as April '17 and index for Jan '17 shall be considered).

Y0= Monthly Whole Sale Price Index for All Commodities for last month of work execution:

AND

B.2 The bidder should have executed the following in the last seven years preceding the latest due date of bid submission.

B.2.1 RCC works

Executed at least **10,520 CUM** RCC quantities within a common period of twelve consecutive months in cumulative of two running/ completed contracts.

Or

Executed at least **7,010 CUM** of RCC quantities, completed within a period of twelve consecutive months in one running/completed contract.

AND

B.2.2 Structural works

Executed the Structure work for

“At least **2,970 MT** of Structure Fabrication work within a common period of twelve consecutive months in cumulative of two running/ completed contracts.

And

At least **2,970 MT** of Structure Erection work within a common period of twelve consecutive months in cumulative of two running/ completed contracts.”

OR

“At least **1,980 MT** of Structure Fabrication work, completed within a period of twelve consecutive months in one running/completed contract.

And

At least **1,980 MT** of Structure Erection work, completed within a period of twelve consecutive months in one running/completed contract.”

Note-1: The term “**Executed**” in PQR B.1 & B.2 above means: the bidder should have achieved the criteria specified even if the contract has not been completed

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or closed.

Note 2: Bidders not satisfying the conditions above can have consortium for the area of work as mentioned below.

Note 3: In case the bidder is a subsidiary but does not meet the requirement of any clause other than Clause B.1 alone, then, the credentials of their parent company shall be considered for satisfying the PQR subject to the following:

- i). The parent company shall have a controlling stake of 50% or more in the subsidiary company.
- ii). The parent company provides an undertaking that they are jointly or severally responsible for successful performance of the contract.

Definition:-

Standalone bidder:- The bidder who fulfils all the conditions stipulated above on their own without any consortium partner.

Prime bidder: The Prime Bidder shall be one, who qualifies against the conditions specified under Clause B.1 & B.2.1 on his own without any consortium Partners.

Consortium partner: - Consortium partner is the one who qualifies against one or more of the conditions specified under Clause B.2.2

B-3. CONSORTIUM CONDITIONS

In case of consortium bidding, following shall be complied with Relevant document shall be submitted in these regards.

1.0	Number of partners including prime bidder shall not be more than 2 (two) .
2.0	Prime bidder shall be the bidder who has a major share of work. Prime bidder should satisfy the conditions stipulated in B.1 and B.2.1 on his own and can have consortium partner(s) for the Conditions stipulated under Clause B.2.2 subject to a maximum of two agencies including the prime bidder in a consortium bid.
3.0	Prime bidder together with all his partner(s) in a consortium should fulfill all the conditions as specified in B1 & B.2 in the PQR. Prime bidder and consortium partner(s) shall enter into consortium agreement as per the form F22 in Tender.

NOTICE INVITING TENDER

4.0	<p>In case consortium bidding is allowed as per pre-qualifying requirement, then the prime bidder and consortium partner(s) shall enter into consortium agreement. Validity period of consortium agreement shall be 6 months initially. Thereafter, the Prime Bidder and Consortium Partner(s) shall certify to BHEL regarding existence and validity of their consortium agreement on six monthly basis.</p> <p>‘Standalone’ bidder cannot be a ‘prime bidder’ or a ‘consortium partner’ in consortium bidding. Prime bidder shall not be a consortium partner to other prime bidder(s). A prime bidder shall not submit more than one consortium bid. However, consortium partner may enter into consortium agreement with other prime bidders. In case of non-compliance, consortium bids of such prime bidders will be rejected.</p>
5.0	<p>Prime bidder shall comply with all other Pre-Qualifying Criteria for the tender unless otherwise specified.</p>
6.0	<p>Short listed bidders (Standalone/ Prime bidder with his consortium partners) shall be considered for the tender subjected to the approval by customer</p>
7.0	<p>Prime bidder shall be responsible for the overall execution of work.</p>
8.0	<p>Performance as per Clause no 9 of NIT shall be evaluated for prime bidder and consortium partner(s) for their respective scope of work and each agency including the prime bidder in a consortium should qualify individually against NIT clause no: 9 on performance evaluation criteria so that the consortium is qualified.</p>
9.0	<p>In case Prime Bidder withdraws, the whole contract shall be considered cancelled and short closed.</p>
10.0	<p>In case the Consortium partner(s) backs out, another consortium partner(s) meeting the QRs, has to be engaged by Prime Bidder and if not, the respective work will be withdrawn and executed on risk and cost basis of the prime bidder.</p>
11.0	<p>Each consortium partner(s) shall submit Security Deposit equivalent to 1% of the total contract value to BHEL in addition to the SD to be furnished by the Prime bidder for the total contract value. The 1% SD may be remitted in line with clause 1.10 in GCC.</p>
12.0	<p>After successful execution of one similar works in consortium with the same consortium partner(s) under direct orders from BHEL, the prime bidder shall be eligible for becoming a standalone bidder for similar works, subject to certification from end user/purchaser about the active involvement of the prime bidder for satisfactory execution of works.</p>

NOTICE INVITING TENDER

- | | |
|------|---|
| 13.0 | Credentials of works executed by prime bidder and consortium partner(s) should be submitted separately for their respective area of work in the format enclosed. |
| 14.0 | Consortium partner's qualifying work should be similar to the requirement in the current tender. Scope of supply of T&P, completion certificate and work order should reflect this else it may lead to disqualification |

NOTICE INVITING TENDER

ANNEXURE - 4

Additional Format to be submitted by Bidders separately as "Annexure to Pre-Qualifying Criteria".

Non submission of this additional format will make the bid liable for rejection

Name of the Bidder: M/s.....

Sl. No.	PQR Ref	PQR (Reproduced from Annexure -1 and Annexure – 3)	Qualifying Experience	Work order Ref with page no in Offer for supporting documents	Completion certificate ref for the referred Work with page no in Offer for supporting documents	Details of work with Project, Unit, Quantity / rating & Period	Remarks
1	Technical B.1 & B.2	B 1Technical Qualification Criteria: Bidder should have executed "Similar works" for any one					

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	<p>of the following in the last seven years preceding the latest date of bid submission.</p> <p>B.1.1 One (1) work of value not less than Rs44.45 Crore (OR) B.1.2 Two (2) works each of value not less than Rs.27.80 Crore (OR) B.1.3 Three (3) works each of value not less than Rs.22.20 Crore</p> <p>Note for B.1.1 to B.1.3</p> <ul style="list-style-type: none"> • “Similar works” Means Piling or civil or structure or “Civil & Structural works” or RCC Chimney or RCC Cooling tower or RCC silo or Mill bunker or any combination of these. <p style="text-align: center;">AND</p> <p>B.2 The bidder should have executed the following in the last seven years preceding the latest due date of bid submission.</p> <p>B.2.1 RCC works</p>					
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	<p>Executed at least 10,520 CUM RCC quantities within a common period of twelve consecutive months in cumulative of two running/ completed contracts.</p> <p>Or</p> <p>Executed at least 7,010 CUM of RCC quantities, completed within a period of twelve consecutive months in one running/completed contract.</p> <p>AND</p> <p>B.2.2 Structural works Executed the Structure work for</p> <p>“At least 2,970 MT of Structure Fabrication work within a common period of twelve consecutive months in cumulative of two running/ completed contracts.</p> <p>And</p> <p>At least 2,970 MT of Structure Erection work within a common period of twelve consecutive months in cumulative of two running/ completed contracts.”</p>					
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Tender Specification No.: BHEL PSSR SCT 1812

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Sl. No.	PQR Ref	PQR (Reproduced from Annexure -1 and Annexure – 3)	Qualifying Experience	Work order Ref with page no in Offer for supporting documents	Completion certificate ref for the referred Work with page no in Offer for supporting documents	Details of work with Project, Unit, Quantity / rating & Period	Remarks
		<p style="text-align: center;">OR</p> <p>“At least 1,980 MT of Structure Fabrication work, completed within a period of twelve consecutive months in one running/completed contract.</p> <p style="text-align: center;">And</p> <p>At least 1,980 MT of Structure Erection work, completed within a period of twelve consecutive months in one running/completed contract.”</p>					
2	<u>Financial C1</u>	<p>TURNOVER</p> <p>Bidders must have achieved an average annual financial turnover (Audited) of of Rs.16,65,00,000 /- (Rs. Sixteen Crore Sixty Five Lakh Only) or more, over last three Financial Years (FY) i.e 2015-16, 2016-17 and 2017-18.</p>					

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Sl. No.	PQR Ref	PQR (Reproduced from Annexure -1 and Annexure – 3)	Qualifying Experience	Work order Ref with page no in Offer for supporting documents	Completion certificate ref for the referred Work with page no in Offer for supporting documents	Details of work with Project, Unit, Quantity / rating & Period	Remarks
3	Financial C2	NETWORTH (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive					
4	Financial C3	PROFIT Bidder must have earned profit in any one of the three Financial Years as applicable in the last three Financial Years defined in 'C-1' above based on latest Audited Accounts.					
5	Financial C4	Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking to this effect.					

Note:

- 1) BIDDER SHALL SUBMIT PRE-QUALIFICATION CRITERIA FORMAT (Refer Annexure-4), DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC. IN THE RESPECTIVE ANNEXURES IN THEIR OFFER

NOTICE INVITING TENDER

- 2) Authenticity of Credentials submitted by the Bidder against 'Pre-Qualifying Criteria' shall be verified from the Issuing Authority, by BHEL. In case, any credential(s) is/are found to be unauthentic, offer of the bidder is liable to be rejected. BHEL reserves the Right to Initiate any further action as per the "Guidelines for Suspension of Business Dealings with Suppliers/Contractors" (Published in http://www.bhel.com/vender_registration/vender.php) and "Fraud Prevention Policy" (Published in <http://www.bhel.com/home.php>) as applicable.

Tender Schedule

Description	Schedule	Remarks
Technical Bid Opening	As mentioned in Notice Inviting Tender.	
Communication from BHEL for Clarifications, if any, required by BHEL	On or before fifth day of tender opening	
Last date for Bidders to submit the clarifications / documents required	On or before tenth day of tender opening	Bidders to note that their competent representative to be readily available in this week for offering clarifications / submitting the further documents, if any, required.
If Reverse Auction is applicable, then the tentative date for conducting Reverse Auction	Twenty first day of tender opening	Exact date of reverse auction shall be informed to the bidders through BHEL's reverse auction agency. Bidders to note that their competent representative to be readily available at one day notice for Reverse Auction.

Note:

1. Bidders to note that the above schedule should be adhered to and no further extension will be given. To adhere to the schedule indicated below, Bidders should ensure the adequacy of the documents submitted in their offer, with proper validation.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure 6

DECLARATION BY BIDDER FOR PRICE OPENING THROUGH REVERSE AUCTION

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

To,

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

Dear Sir,

Sub : Declaration by Bidder for Price opening through Reverse Auction

Ref : 1) NIT / Tender Specification No:,
2) Participation in the Reverse Auction

We have studied and understood the clauses of Reverse auction published in the tender specification.

Strike out either (1) or (2) of the following whichever is not applicable.

1. I / We, hereby declare that I / we **shall be** participating in the Reverse Auction in case BHEL opts for opening the price bid through Reverse auction.
2. I / We, hereby declare that I / we **shall not be** participating in the Reverse Auction in case BHEL opts for opening the price bid through Reverse auction.

Yours faithfully,

Date: (Signature, Date & Seal of Authorized Signatory of the Bidder)



VOLUME – IA Part I & II

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC)

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TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER – I

PROJECT INFORMATION

INTRODUCTION

ENNORE SEZ SUPERCRITICAL TPS UNITS- 1 & 2 [2 x 660 MW] is being set up by **TAMILNADU GENERATION AND DISTRIBUTION CORPORATION** at a site in Vayalur Village Near Ennore Port, Tamilnadu, India. Plant will be set up in existing Ash Dyke of NCTPS by reclamation of some portion of the Ash Dyke. The Bidder shall acquaint himself by a visit to the site, if felt necessary, with the conditions prevailing at site before submission of the bid. The information given here in under is for general guidance and shall not be contractually binding on BHEL/Owner. All relevant site data /information as may be necessary shall have to be obtained /collected by the Bidder.

APPROACH TO SITE

The proposed plant will be located at Ash dyke of North Chennai Thermal Power, approximately 35 km from Chennai, in the state of Tamilnadu, India. The site is occupying a coastal site near the village of Vayalur. The nearest commercial airport is at Chennai located at a distance of 60 kms from the project site.

Nearest Airport – Chennai

Nearest Airstrip – Chennai

Nearest Seaport – Ennore

A. Project Information & Location

Project Title: Ennore SEZ project of 2 x 660 MW Coal Based Super Critical Thermal Power Project at ash dyke of NCTPS

Plant Capacity: 1320 MW (2 units of 660 MW each)

Type of Project: Green field

Owner: Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Plant site location: Ash dyke of North Chennai Thermal Power Station (NCTPS)

Location co-ordinates: 80o 18' E to 80o 19' E Longitude
13o 17' N to 13o 18' N Latitude

Nearest Village: Vayalur

Nearest Town & City: Chennai (35 Km)

State Capital: Chennai (35 Km)

Nearest Railway Station: Athipattu Pudunagar (~5 Km)

Nearest Airport: Chennai (~60 Km)

Nearest Seaport: Ennore (~5 Km)

Nearest Road access: All weather road from Pattamandri on the Thiruvottiyur – Ponneri district highway.

B Meteorological Condition

Owner: Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)

Owner Consultant: DESEIN, DELHI,

Site Elevation: (+) 10.0 m above Mean Sea Level

Ambient Temperature: a. Maximum 32.0 Deg.C

b. Minimum 24 Deg.C

c. Design ambient temperature 35 Deg.C

Relative Humidity: a. Maximum 100%

b. Minimum 36%

c. Design 75%

Annual Rainfall: a. Maximum 2540 mm

b. Average 1600 mm

c. Minimum 1175 mm

Wind Data: a. Basic wind speed at 10m height : 50 m/sec

b. Wind pressure As per IS: 875 Part III-1984

Seismic Zone : Zone III as per IS: 1893-2002

Design ambient temperature: 50 Deg.C (For electrical Equipments)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER – II

SCOPE OF WORKS

1.2.1. The scope of works covers mainly part of Super structure civil, structural and Architectural works of Coal Handling Plant & Ash Handling Plant area (Outside plant boundary) of Ennore SEZ (2 x 660 MW) TPP Unit-1 & 2). The work involves super structure civil works above the pile caps provided by BHEL (N.B.: for areas, where there is no pile beneath the structure, complete civil works are covered in this scope), including all architectural works and hand over the structures to TANGEDCO in all respect as per BOQ, Specifications and drawings.

1.2.2. List of major structures / buildings works covered under the scope of this contract is given below:

AREAS OF WORK

Civil, Structural and Architectural Works for ICHP – Unit # 1 & 2	
S. No.	STRUCTURE
<u>1</u>	<u>WORKS OUT SIDE THE BOUNDARY WALL</u>
1.1	<u>PIPE CONVEYOR</u>
a	Pipe Conveyor PC-1A/1B (Standalone portion) (part)
b	Pipe Conveyor along with CW pipes PC-1A/1B (Bridge Portion across the canal/water body) (part)
2.1	<u>JUNCTION TOWERS</u>
a	Transfer House TH-1
b	Junction Tower JTB-3
c	Junction Tower JTB-4
2.2	<u>TROUGH CONVEYORS</u>
a	Conveyor BCZ-1A/1B
b	Conveyor SFC-1A/1B
2.3	<u>PIPE CONVEYOR</u>
a	Pipe Conveyor PC-1A/1B (Standalone portion) (part)
b	Pipe Conveyor along with CW pipes PC-1A/1B (Bridge Portion across the canal/water body) (part)
2.4	<u>ELECTRICAL BUILDINGS</u>
a	ERZ-I
2.5	<u>PUMP HOUSES</u>
b	PMHZ-1

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2.6	OUT SIDE ROADS & DRAINS
a	Outside Plant drains
b	Outside Plant roads

Note: The above provided list is indicative only for the bidder's guideline. **Any other building / structure / foundation not mentioned above, but required for completion of the project in total, deemed to have been included in the bidder scope under this contract.** Such work will be executed under this contract by bidder as per the direction of Engineer in charge. If any item of work not available in the rate schedule of this contract, the rate will be fixed in line with clause 2.15.7 of GCC.

Reinforcement steel, structural steel for civil/ structural works & MS round for below ground earthing shall be provided by BHEL free of cost. Embedments /inserts required for the works in general shall be supplied by the bidder and payment shall be made as per corresponding item in BOQ. If BHEL provides Structural Steel from scraps (if available) for inserts, payment shall be made as per corresponding item in BOQ.

1.2.3. The works to be performed under this contract consist of providing all labour, supervision, material, scaffolding, construction equipment's, tools and plants, temporary works, supplies including POL, transportation and all incidental items not shown or specified but reasonably implied or necessary for the proper completion of work in all respects. Testing of all materials, concrete, earthwork other allied works, preparation of bar bending schedules on the basis of construction drawings, etc. are included in the rates of items of work.

1.2.4. The area of work shall be cleared of all vegetation, rubbish and other objectionable Matter and materials removed shall be burnt or otherwise disposed of as directed by the Engineer-in-Charge. No separate payment for these operations shall be made. The cost of all these operations shall be deemed to

TECHNICAL CONDITIONS OF CONTRACT (TCC)

have been included in the unit rates rendered for the different items under bill of quantities.

1.2.5. All the works areas shall be adequately flood lighted to the satisfaction of the Engineer-in-Charge when the work is in progress during the night shifts.

1.2.6. The unit rates shall include all material equipment, fixtures, labour construction plant, temporary works and everything whether of permanent or temporary nature necessary for the completion of job in all respects.

1.2.7. The unit rates for various items of B.O.Q shall include all the stipulations Mentioned in technical specifications and nothing extra over B.O.Q rates shall be payable.

1.2.8. Drawings showing enough details for the construction as per the specification shall be furnished to the contractor in a phased manner.

1.2.9. The bidder should fully apprise himself of the prevailing conditions at the proposed site, climatic conditions including monsoon pattern, local conditions, soil strata and site specific parameters and shall include for all such conditions and contingent measures in the bid, including those which may have not been specifically brought out in the specifications.

1.2.10. The scope of works covers the work across the canal, water bodies & marsh land. All arrangements required to carry out the work (including approach to the work place for men, materials & T&Ps) in above mentioned area are in the scope of bidder. Permission, if any, required for carrying out work (including approach to the work place for men, materials & T&Ps) in the mentioned area outside plant boundary from any statutory authority, is to be arranged by the bidder at their own cost. Additional arrangement of trailers for logistics of fabricated material, if required, for erection outside plant boundary is to be arranged by the bidder at their own cost. Power for the work in the mentioned area can be drawn from the single point source as provided by TANGEDCO on chargeable basis. Alternatively, portable DG can be provided by the bidder to carry out erection and other relevant activities outside plant boundary at their own cost.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER – III

FACILITIES & CONSUMABLES IN THE SCOPE OF CONTRACTOR / BHEL

(SCOPE MATRIX)

Sl.No	Description PART I	Scope to be taken care by		Remarks
		BHEL	Bidder	
1.3.1.1.0	ESTABLISHMENT			
1.3.1.1.1	FOR CONSTRUCTION PURPOSE:			
A	Open space for office	Yes		
B	Open space for storage	Yes		
C	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
D	Bidder's all office equipments, office / store / canteen consumables		Yes	
E	Canteen facilities for the bidder's staff, supervisors and engineers etc		Yes	
F	Firefighting equipments like buckets, extinguishers etc		Yes	
G	Fencing of storage area, office, canteen, labour hutment, etc of the bidder,		Yes	
1.3.1.1.2	FOR LIVING PURPOSES OF THE BIDDER			
A	Open space		Yes	
B	Living accommodation		Yes	
1.3.1.2.0	ELECTRICITY			
1.3.1.2.1	Electricity For construction purposes (to be specified whether chargeable or free)			Chargeable as provided by TANGED CO

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Sl.No	Description	Scope to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
1.3.1.2.1.1	Single point source	Yes		On chargeable basis as per Prevailing rate of TANGEDCO
1.3.1.2.1.2	Further distribution for the work to be done which include supply of materials and execution		Yes	
1.3.1.2.2	Electricity for the office, stores, canteen etc of the bidder which include:		Yes	
1.3.1.2.2.1	Distribution from single point including supply of materials and service		Yes	
1.3.1.2.2.2	Supply, installation and connection of material of energy meter including operation and maintenance		Yes	
1.3.1.2.2.3	Duties and deposits including statutory clearances for the above		Yes	
1.3.1.2.2.4	Living facilities for office use including charges		Yes	
1.3.1.2.2.5	Demobilization of the facilities after completion of works		Yes	
1.3.1.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors, labour hutment etc on the above lines.(in case BHEL provides this facility, the scope should be given without ambiguity)		Yes	
1.3.1.3.0	WATER SUPPLY			
1.3.1.3.1	For construction purposes:	Yes		Chargeable as per prevailing rate of TANGEDCO
1.3.1.3.1.1	Making the water available at single point	Yes		

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Sl.No	Description	Scope to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
1.3.1.3.1.2	Further distribution as per the requirement of work including supply of materials and execution		Yes	
1.3.1.3.2	Water supply for bidder's office, stores, canteen etc		Yes	
1.3.1.4.0	LIGHTING			
1.3.1.4.1	For construction work (supply of all the necessary materials) At office storage area At the preassembly area At the construction site / area		Yes	
1.3.1.4.2	For construction work (Execution of the lighting work / arrangements) At office storage area At the preassembly area At the construction site /area		Yes	
1.3.1.5.0	COMMUNICATION FACILITIES for site operations of the bidder	-		
1.3.1.5.1	Telephone, Fax, internet, intranet, email etc		Yes	

Sl.No	Description	Scope to be taken care by		Remarks
		BHEL	Bidder	
	PART II			
	CONSTRUCTION FACILITIES			
1.3.2.1.0	Engineering works for construction			
1.3.2.1.1	Providing the construction drawings for all the equipment's covered under this scope	Yes		
1.3.2.1.2	Drawings for construction methods		Yes	In consultation with BHEL
1.3.2.1.3	As-built drawings – wherever deviations observed and executed and also based on the	Yes	Yes	"

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Sl.No	Description	Scope to be taken care by		Remarks
		BHEL	Bidder	
	PART II			
	decisions taken at site- example – routing of small bore pipes			
1.3.2.1.4	Shipping lists etc. for reference and planning the activities	Yes	Yes	”
1.3.2.1.5	Preparation of site construction schedules and other input requirements		Yes	In consultation with BHEL
1.3.2.1.6	Review of performance and revision of site construction schedules in order to achieve the end dates and other commitments		Yes	
1.3.2.1.7	Weekly construction schedules based on SI No 1.3.2.1.5		Yes	
1.3.2.1.8	Daily construction / work plan based on SI No 1.3. 2.1.7		Yes	For daily monitoring meeting at site
1.3.2.1.9	Periodic visit of the senior official of the bidder to site to review the progress so that works are completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two months.		Yes	
1.3.2.1.10	Preparation of preassembly bay		Yes	
1.3.2.1.11	Laying of racks for gantry crane brought by the contractor / bidder himself		Yes	

1.3.3 OPEN SPACE:

Open space will be provided to the bidder free of cost as provided by TANGEDCO. Availability of land within plant boundary is very limited and the contractor has to plan and use the existing land considering the use of land by other Civil /mechanical/ electrical contractors and the storage of plant machineries and materials. The existing land shall be shared by all erections agencies. Land will be allocated with certain time frame and to the extent available/ considered

TECHNICAL CONDITIONS OF CONTRACT (TCC)

necessary, and will be reviewed by BHEL depending upon the area availability. Area within plant premises for batching plant, fabrication yard, office, storage area etc. for construction purpose shall be provided as per availability free of cost. The contractor will be responsible for handing back all lands, as handed over to him by BHEL.

Contractor has to make his own arrangements for labour colony. The contractor to construct labour colony/ hutment as per his requirements after obtaining approval of formalities from statutory body. The contractor shall provide adequate water arrangement for drinking/washing/bathing with required toilets, drainage system, lighting facilities etc. in labour colony. Suitable paved area to be provided in the labour colony.

1.3.4 ELECTRICITY:

- 1.3.4.1 Construction power will be provided to the contractor on prevailing rates of TANGEDCO on **chargeable basis** at one single point WITHIN THE PLANT AREA by BHEL. The contractor to Provide necessary meter for measuring the power consumption. The contractor shall make his own arrangement for further distribution with necessary isolator/LCB etc.

Construction power prevailing charges are as below,

The present LT tariff VI rate of TANGEDCO is

- a) Consumption charges at Rs.12.00 per unit
- b) Fixed charges as applicable per month
- c) Electricity Tax on total amount

Note - The TANGEDCO tariff and tax may vary from time to time.

- 1.3.4.2 Necessary "Capacitor Banks" to improve the Power factor to a minimum of 0.9 shall be provided by the contractor at his cost. Penalty if any levied by customer on this account will be recovered from contractor's bills.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- 1.3.4.3 Any duty, deposit involved in getting the Electricity shall be borne by the bidder. As regards contractor's office shed also all such expenditure shall be borne by the contractor.
- 1.3.4.4 Provision for distribution of electrical power from the given single central common point to the required places with proper distribution boards, approved cables and cable laying including supply of all materials like cables, switch boards, pipes etc., observing the safety rules laid down by electrical authority of the State / BHEL / their customer with appropriate statutory requirements shall be the responsibility of the tenderer / contractor.
- 1.3.4.5 BHEL is not responsible for any loss or damage to the contractor's equipment as a result of variations in voltage / frequency or interruptions in power supply.
- 1.3.4.6 Contractor has to make their own arrangements for electricity requirement for labour colony at his own cost.
- 1.3.4.7 As there are bound to be interruptions in regular power supply, power cut/ load shedding in any construction sites, contractor should make his own arrangement for alternative source of power supply through deployment of adequate number of DG sets at their cost during the power breakdown / failure to get urgent and important work to go on without interruptions. No separate payment shall be made for this contingency.
- 1.3.5 **WATER:**
- 1.3.5.1 Water (Raw water) required for construction purposes will be provided at one single point WITHIN THE PLANT AREA on **chargeable basis** at the prevailing rates of TANGEDCO. The contractor to Provide necessary meter for measuring the water consumption. The required pumps & accessories, pipes for drawing water from the given point and further distribution will be arranged by the contractor at their cost to go on without interruptions.

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- 1.3.5.2 Bidder to make his own arrangements for construction water outside plant boundary at bidders cost.
- 1.3.5.3 The water charges may vary from time to time as per TANGEDCO/Metro conditions. However the prevailing water charge is Rs 157.00 per Kilo litres and may liable changes. Any dispute regarding consumption, the BHEL engineer decision will be final.
- 1.3.5.4 Incase non-availability of water or the TANGEDCO is not able to supply the water, the contractor shall make his own arrangements of **water suitable for construction purpose** to have uninterrupted work. No separate payment shall be made for any contingency arrangement made by contractor, due to delay / failure for providing water supply. **Contractor has to make his own arrangements for their water requirement for their labour colony at their cost.**
- 1.3.6 **MATERIAL SUPPLY:**
Supply / providing aggregate, sand (M-sand) and all other materials required (except free supply materials i.e. reinforcement steel, structural steel from scraps for inserts (if available), foundation bolts & inserts/ embedments supplied by manufacturing units of BHEL) for the work are in the scope of the contractor. **BHEL shall provide reinforcement steel for civil works and structural steel for structural works only for incorporation in the permanent work AS FREE SUPPLY.** In general, structural steel required for embedment/ inserts shall be supplied by the bidder and payment shall be made as per the relevant items of BOQ.
- The steel material will be issued from BHEL stores, within the plant premises. Collection and transporting to the place of work is in contractor's scope without any extra cost to BHEL. The steel will be issued to the agency in standard lengths. In some instances, for 8mm,

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10mm & 12mm dia reinforcement steel will be supplied in coil form.

No extra claims will be entertained against issue of Non-standard lengths of steel and de coiling of 8mm, 10mm & 12mm dia. steel.

If any matching sections of steel are not available with BHEL, contractor may arrange these sections on certification of BHEL and the landing cost of sections to site will be reimbursed based on the prevailing rate at SAIL at the time of procurement at the nearest SAIL outlet with the freight charges against supporting document.

1.3.6.1 Ordinary Portland Cement (OPC) shall be used for all structures except for foundations, underground structures & structures coming in contact with sea water where in sulphate resistant cement with C3A content limited to 5% or Ordinary Portland cement with C3A content 5% to 8% shall be used depending on the presence of sulphate and chlorides in water / soil. Grade of cement shall be 43 conforming to IS: 8113.

1.3.6.2 Fine aggregate source shall be manufactured crushed stone or rock sand, excluding fines which are by products/rejects of coarse aggregate production. The crushed stone sand shall be graded from fine to coarse with the coarse sizes predominating to give maximum density.

The amount of fine particles as ascertained by the laboratory sedimentation method shall not exceed 10% for crushed stone nor 4% for natural sand. The amount of material passing a 75 micron sieve (IS test sieve) shall not exceed the following limits:-

- a) Crushed stone sand concrete subject to abrasion 1% by weight
- b) All other concrete 3% by weight .

There shall be no clay or fine silt present. The amount of hollow shells like to form voids or remain partially unfilled and present in material retained on a IS 2.36 mm sieve, determined by direct visual separation, shall not exceed

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3% by weight of the entire sample. Fine aggregate shall not contain appreciable amounts of flaky and/or elongated particles. The water absorption of fine aggregate, determined in accordance with BS 812 shall not exceed 2.0% by weight. Fine aggregate subjected to five cycles of the soundness test, specified in IS:2386 (Part-5), shall not show a loss exceeding 10% when sodium sulphate solution is used and 15% when magnesium sulphate solution is used, except where approved otherwise. Tests are to be executed in accordance with IS:2386. The grading of fine aggregate for concrete work shall comply with the requirements of IS:383. The grading of the aggregates should be such as to produce a concrete of the specified proportions which will work readily into position without segregation and without the use of an excessive water content. The grading should be controlled throughout the work so that it conforms closely to that used for the preliminary tests. A check on the moisture content of sand should be made at least once a day before concreting. The amount of water to be added to the concrete mix should be adjusted accordingly. Any washing, screening, classifying and other operations on the fine aggregate required to meet this specification shall be done by the Contractor. Washing is required if the content of salt adhering to the aggregate is found to be unacceptably high.

1.3.7 **CONSUMABLE**

All consumables, like gas, electrodes, chemicals, lubricants etc. required for the scope of work, shall be arranged by the contractor at his cost unless otherwise specifically mentioned in the contract. Prior approval from Engineer In-Charge shall be obtained for all the consumable to be used in permanent work.

In the event of failure of contractor to bring necessary and sufficient consumables, BHEL may arrange for the same at the risk and cost of the

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contractor. The entire cost towards this along-with overhead shall be paid by the contractor or deducted from the contractor's bills.

1.3.8 **LIGHTING FACILITY:**

Adequate lighting facilities such as flood lamps, hand lamps and area lighting shall be arranged by the contractor at the site of construction, and contractor's material storage area etc. at his cost.

1.3.9 **CONTRACTOR'S OBLIGATION ON COMPLETION:**

On completion of work, all the temporary buildings, structures, pipe lines, cables etc. shall be dismantled and leveled and debris shall be removed as per instructions of BHEL by the contractor at his cost. In the event of his failure to do so, the expenditure towards clearance of the same will be recovered from the contractor. The decision of BHEL Engineer in this regard is final

1.3.10 **DEWATERING**

Contractor shall ensure at all times that his work area & approach/ access roads are free from accumulation of water, so that the materials are safe and the erection/ progress schedule are not affected. No separate claim in this regard shall be admitted by BHEL. No separate payments for dewatering of subsoil, surface water or catchments water, if required, at any time during execution of the work including monsoon period shall be considered by BHEL.

1.3.11 **BID DRAWINGS**

Bid drawings enclosed for information and this may get revised during execution.

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T&Ps TO BE DEPLOYED BY CONTRACTOR

- 1.4.1 All the tools and plants required for satisfactory completion of the work have to be arranged by the contractor.
- 1.4.2 The contractor is required to arrange the following tentative Major T&Ps and other T&Ps for the satisfactory completion of the work

A. CIVIL WORKS

Sr No	Major T&P	Mobilizing time from the date of start of work
B1	1 No. excavator equivalent to capacity of Poclain CK90 or higher to suit the requirement of work at site	1 no. within 30 days
B2	1 no. automatic concrete batching plant with printing facility (minimum capacity of 30 Cum/Hr each) with DG backup. With minimum 2 Nos of silo per batching plant (100MT each)	1 nos to be commissioned within 45 days
B3	1 Nos Truck mounted concrete mixer cum pump along with placing boom minimum 36 m high i.e. Concrete boom placer (36m)	1 No within 45 days
B4	1 nos. concrete pump (60 cum/ hr min capacity & lift 90M) N.B. – Concrete pump can be replace by providing additional concrete boom placer of adequate capacity with prior approval of Engineer In-Charge.	As per BHEL requirement at site
B5	5 nos. transit mixer (5/6 M3 capacity) including standby 1 nos.	3 no's within 45 days. Balance progressively as per BHEL requirement at site.
Sr No	Other T&Ps	Mobilizing time from the date of start of work
B6	2 No. back hoe cum loader like JCB	2 no. within 30 days and balance as per BHEL requirement at site.
B7	4 nos. dumper (Min 15 cum each)	2 nos. Within 20 days. Balance as per BHEL requirement at site.

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B9	2 nos. diesel Mixer machine of 0.5 cum capacity	As per BHEL requirement at site.
B10	2 nos. self-priming dewatering pump 5 HP (diesel)	As per BHEL requirement at site
B11	2 nos. self-priming dewatering pump 5 HP (electric)	As per BHEL requirement at site
B12	4 nos. curing pump – 1.5 /2 HP (pump for curing at heights)	As per BHEL requirement at site
B13	5 nos. reinforcement bending machine	3 nos. within 20 days and balance progressively as per BHEL requirement at site
B14	1 no. Vibromax (earth compactor)	As per BHEL requirement at site.
B15	5 nos. reinforcement cutting machine	3 nos. within 20 days and balance progressively as per BHEL requirement at site
B17	MS scaffolding pipe / ACROW PIPE	As per BHEL requirement at site
B20	1 nos. power driven earth rammer (Roller Type 1/2 T)	As per BHEL requirement at site
B21	Civil laboratory equipment's as per list IN SI 4.4.2 with temporary building one AC lab size 4.5mtrx6mtr and 1 non AC lab 4.5 mtrx4.5 mtr.	Within 55 days.
B22	1 no total station with adequate arrangement for Surveyors.	1 no. Within 15 days and balance as per BHEL requirement at site
B23	1 no theodolite 1 second accuracy	As per BHEL requirement at site, theodolite can be replaced by total station based on requirement at site.
B24	2 or more nos auto level & staff	2 nos. Within 15 days and balance as per BHEL requirement at site. No. of auto level shall be mutually agreed between bidder & Engineer In-charge.

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B25	90 nos concrete cube moulds	90 nos with in 30 days and balance progressively as per BHEL requirement at site
B27	Adequate no. of small trucks 2T/5T for shifting of reinforcement/cement/shuttering etc. within site	As per BHEL requirement at site
B28	1 nos. drinking water tank – 5000 lit.	1 nos. Within 30 days. Balance as per BHEL requirement at site
B29	1 nos. mobile toilet blocks for labour use.	1 no's within 30 days balance within 75 days.
B30	1 nos. truck mounted 125 KVA DG set	1 no. within 30 days
B31	Construction power cable	As per BHEL requirement at site
B32	Construction water Pipeline	As per BHEL requirement at site
B33	1 no. trailor for shifting of crawler mounted equipment's like Poclain, Dozer	As per BHEL requirement at site
B34	Concrete vibrator with adequate needle (Minimum 10 nos diesel/electric nos.)	8Nos (at least 4nos. diesel driven) within 45 Days. Balance as per BHEL requirement at site.
B35	Portable fire extinguishers as below: Soda acid – 10 sets. Dry chemical powder – 10 sets CO2 – 10 sets. Water & sand bucket (4 buckets in one stand) – 10 sets. Fire hose with nozzle (50 M length) – 5 sets.	25% within 30 days and balance progressively within 90 days.
B36	1 no. compression testing machine (200 T cap)	1 Nos. within 30 days
2	STRUCTURAL WORKS	
A	Major T&P items	
A1	1 Nos. of 150T capacity Crawler crane for Erection of structural work	Mobilization shall be as per site requirement. 1 no of crane shall be utilized for erection of precast concrete beams

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		for outside bridge work without affecting the erection schedule of structural erection work.
A2	1 no Gantry crane of 40MT capacity/ 2 Nos. 75/100 T capacity crawler crane for Fabrication and erection.	1 no. within 90 days and balance within 120 days
A3	4 nos. pick & carry crane (10/ 12 T cap)	2 nos. – Within 60 days. Balance progressively as per site requirement
B	<u>Other T&Ps</u>	
B1	1 Nos. Radial drill machine	1Nos. within 75 days. Balance as per site requirement.
B2	2 nos. magnetic base drill machine	2 Nos. within 75 days, and Balance as per site requirement.
B3	4 nos. submerged arch welding machine	2 Nos. within 75 days, 2 Nos. within 90 days and Balance as per site requirement per site requirement.
B4	3 nos. MIG machine	2 Nos. within 75 days, 2 nos. within 90 days and balance as per site requirement
B5	15 Nos Welding rectifier	As per site requirement.
B6	2 no. trailer – 15T	1 no. Within 100 days.
A10	2 no. power driven HSFG bolt tightening m/c	As per site requirement
A11	1 no. torque tightening m/c. (Capacity up to 30 dia HSFG bolt tightening)	As per site requirement
A12	Sufficient quantity of steel ladders for approach up to the top of each erected column to be required during erection of columns.	As per site requirement.
A13	Power winch – 3T -	- As per site requirement.
A14	Power winch – 5T	– As per site requirement.
A15	1 no ultra-sonography testing machine with recording device for structural work.	– As per site requirement.

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A16	1 nos. Painting equipment sets complete with required compressor, hopper, screen, blasting hose pipe, nozzle airless/conventional spray (within CGI temporary cover shed)	– As per site requirement.
A17	1 no Temporary passenger lift at Power house	From power house erection start till clearance given for permanent lift erection.
A18	Plate bending machine (25mm thick plate bending capacity)	As per site requirement
A19	Chain block (3MT/5MT/10MT)	As per site requirement
A20	Ropes/slides including descakles	As per site requirement
A21	Grinding & Buffing machines	As per site requirement
A22	Hydraulic Jack (100MT) – 3Nos	Mobilization as per site requirement
A23	Steel jolly for temporary working platforms	As per site requirement

Note:

1. T&P shown in the above mentioned list is tentative requirement considering parallel working in all areas mentioned in scope of work. However, mobilization schedule & quantity/ numbers as mutually agreed at site for major T&Ps, have to be adhered to. Numbers/ time of requirement will be reviewed time to time at site and contractor will provide required T&P/ equipment's to ensure completion of entire work within schedule/target date of completion without any additional financial implication to BHEL. Vendor will give advance intimation & certification regarding capacity etc. prior to dispatch of heavy equipment's. Also on completion of the respective activity, demobilization of T&P in total or in part can be done with the due approval of engineer in charge. Retaining of the T&P's during the contract period will be mutually agreed in line with construction requirement.
2. All T&P and all IMTEs, which are required for successful and timely execution of the work covered within the scope of this tender, shall be arranged and provided by the contractor at his own cost in working condition.
3. In the event of non-mobilisation of any T&P by the successful bidder and as a result progress of work suffered, BHEL reserves the right to engage required T&P in line with SCC clause no. 4.2.1.7.
4. In the event of need of change of type of any of major T&Ps, approval shall be taken from BHEL Engineer in-charge prior to mobilization. The decision of Number of T&P required due to replacing the enlisted T&P as per above table, shall be taken after analyzing the production capacity and suitability of both the T&Ps.
5. Clause no. 6.1. of this specification (i.e. TCC) shall be referred for date of start of work.

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6. Mobilization of concrete boom placer in place of concrete pump will be allowed based on site requirement of BHEL.

- 1.4.3 4.3 In addition to the above, any other tools and plants required for execution of the above work are in contractor's scope.
- 1.4.4 4.4. The Bidder shall establish and maintain a field laboratory on the site and this laboratory shall be available at all time for testing.
- 1.4.5 4.4.1 The laboratory must have qualified technicians to carry out all tests and must be adequately equipped to ensure that all necessary testing work can be carried out in compliance with the standards.
- 1.4.6 4.4.2 Field and laboratory testing procedures for materials follow Indian Standard Specifications with necessary equipment's like as given in table below:

CONCRETE TESTING EQUIPMENT				
SL NO	NAME OF TEST	NAME OF EQUIPMENT	SIZE OF EQUIPMENT	IS REF.
1	Initial & final setting time, Consistency of cement	Vicat Apparatus with desk pot	Standard	IS 5513
2	Shrinkage of cement, Auto Clave Test	Le Chatelier's apparatus Auto Clave Equipment	Standard	IS 5514
3	Abrasion value test	Los Angeles Abrasion testing machine	Standard	IS 2386
4	Aggregate Impact value test	Aggregate Impact value testing machine with blow counter	Standard	IS 9377
5	Aggregate crushing value test	Crushing value apparatus	Standard	IS 2386
6	Flakiness index	Thickness gauge for measuring flakiness index	Standard	IS 2386
7	Elongation Index	Elongation guage	Standard	IS 2386
8	Bulk density, voids and bulking apparatus	Measuring cylinders	3, 5,10 & 15 liters cylinders	
9	Workability of concrete	Slump cone	Standard, at least 04 no's	IS 456

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10	Specific gravity of aggregates	Pycnometer	Standard, at least 02 no's	IS 383
11	Cement mortar cube vibrating	Motorised vibration machine for cement testing	Standard	IS 4031
12	Course aggregate Sieve analysis (Concrete & Road Works)	Sieve set	450mm dia GI Frames Size: 125 mm, 90 mm, 75 mm, 63 mm, 53 mm, 40 mm, 20 mm, 16 mm, 12.5 mm, 10 mm, 4.75 mm, Pan and cover	IS 383
13	Fine aggregate sieve analysis	Sieve set	200 mm dia Brass sieves; Size 4.75 mm, 2.36 mm, 1.18 mm 600 micron, 300 micron, 150 micron, 75 micron, 75 micron, Pan and cover	IS 383
14	Sieve Shaker	Motorized Sieve shaker	Mfg. Catalogue	
15	Silt content check	Sand silt content beaker	Standard	

Soil Testing Equipment				
1	Liquid limit test	Liquid limit apparatus	Standard	IS 2720
2	Core Cutter test	core cutter apparatus	Rammer, 6 no's of std. core cutter mould, dolly	IS 2720
3	Proctor density test	Std proctor Compaction apparatus	Standard	IS 2720
4	Moisture Content	Rapid moisture meter	Standard, at least 04 no's	IS 2720

1.4.7 4.5. Contractor shall have at all times experienced operators and technicians for routine and breakdown maintenance of the equipment. Any delay in rectification of defects will warrant BHEL rectifying the defect and charging the cost to the contractor.

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- 1.4.8 4.6. The area and infrastructure development of the work area are to be carried out by the customer. However in construction projects of this magnitude it is possible that all the areas / approaches may not be ready. In such cases consolidation of ground and arrangement of sleepers / sand bag filling etc for safe operation / movement of equipment including cranes / trailers etc shall be the responsibility of the contractor at his cost. No compensation on this account shall be payable.
- 1.4.9 4.7. In case the contractor fails to provide any T&P which is in the scope of contractor and if BHEL provides such T&P available with BHEL, hire charges prevailing (as per BHEL norms) as on that day will be recovered from the contractor as per the prevailing BHEL Corporate Crane hire charges (may vary from time to time). Corresponding pages of Corporate Crane hire charges are enclosed in Chapter 2 of part II of Technical Conditions of Contract (Volume-I Book-I). This may get revised further as per the BHEL corporate guidelines. However prevailing rates as on date of execution may be applicable
- 1.4.10 Crane operators deployed by the contractor shall be tested by BHEL before they are allowed to operate the cranes.

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1.5 T & Ps PROVIDED BY BHEL

- 1.5.1 BHEL will provide suitable higher capacity cranes above 150T capacity to the contractors as per the requirement at the discretion of BHEL on free of hire charges on shareable basis. The cranes of 150MT and below 150MT is in the scope of bidder
- 1.5.2 Besides the T & P mentioned above, which is being made available to the contractor on free of hire charges, any additional crane and other T & P which may be required for successful and timely execution of the work covered within the scope of this tender shall be arranged and provided at site by the contractor at his cost. In case if the contractor fails to provide such equipment's, BHEL will arrange for the same and the cost will be recovered from the contractor's bill with BHEL overheads, as applicable from time to time which may vary even during contract period.
- 1.5.3 BHEL's Crane is only for erection purpose and shall not be available for material handling or transportation purpose. Contractor shall make their own arrangements for material transportation to erection site.
- 1.5.4 BHEL may provide either BHEL owned cranes or hired cranes at the discretion of BHEL. Operator for the BHEL supplied cranes will be provided by BHEL on free of charges.
- 1.5.4.1 Bidder to note the following:-
- a. In the event of providing BHEL Cranes:
 - a.1: Fuel has to be arranged by the contractor at his cost.
 - b. In the event of providing hired cranes:
 - b.1: Fuel has to be arranged by the contractor at his cost.
- 1.5.4.2 For all BHEL's crane BHEL shall provide crane operators free of charges, all consumables for BHEL crane maintenance shall be provided by the contractor within the quoted rates.
- 1.5.4.3 Tentative List of consumables required to be provided by contractor is as below:
- 1.5.4.3.1 Engine Oil 15 W 40
 - 1.5.4.3.2 Fuel Filters
 - 1.5.4.3.3 Air Filters

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- 1.5.4.3.4 Hydraulic Filters
- 1.5.4.3.5 Hydraulic Oil –Servo 68
- 1.5.4.3.6 Gear Oil- Servo 90
- 1.5.4.3.7 Engine oil Filter
- 1.5.4.3.8 Oil Separator Filter
- 1.5.4.3.9 Rope- CRG 100 Grease
- 1.5.4.3.10 Grease- Servo Multi-Purpose Grease

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TIME SCHEDULE

- 1.6.1 The date of commencement of work at site shall be mutually agreed between successful bidder and BHEL.
- 1.6.2 The entire work of Civil, structural and Architectural works as detailed in the Tender Specification shall be completed within **15 (Fifteen) months** from the date of commencement of work with intermediate milestones as mentioned below,

S No	Description	Completion Month from the contractual date of start of the work	Intermediate Milestone
1	PMHZ#1	9 th Month	M1
2	Bridge for pipe/ equipment erection	13 th Month	M2

- 1.6.3 During the total period of contract, the contractor has to carry out the activities in a phased manner as required by BHEL and the program of milestone events.
- 1.6.4 The contractor is required to refer Form 15 in Volume 1- BOOK 2 for all the instructions to be taken immediately after receipt of LOI.
- 1.6.5 **MOBILISATION**

The Contractor has to subsequently augment his resources in such a manner to achieve the COMPLETION SCHEDULES:

The above time allowed for completion of work including Sundays and Holidays is from the date of commencement of work. Detailed program to be prepared by the tenderer taking in to consideration of the COMPLETION SCHEDULES /site decision on drawings flow (latest) and submitted for BHEL's approval.

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1.6.6 In order to meet above schedule in general, and any other intermediate targets set, to meet customer / project schedule requirements, contractor shall arrange & augment all necessary resources from time to time on the instructions of BHEL.

1.6.7 In case the project is to be advanced, the civil works in the scope of the contractor is to be advanced to meet the project requirement. No extra payment whatsoever shall be paid on this account.

1.6.8 **SUBMISSION OF L3 SCHEDULE**

The contractor shall submit and a detailed area/structure wise L3 schedule within 15 days from date of issue of LOI, in consultation with BHEL based on the tentative schedule provided as per the clause 6.10. The detailed L3 schedule shall be approved by BHEL and same shall be implemented. Bidder shall submit L3 schedule in MS Projects to meet the agreed project schedule covering various mile stone activities and their split up details such as construction, procurement of materials, fabrication & erection activities. This schedule shall also clearly indicate the interface facilities/inputs to be provided by BHEL/Customer and the dates by which such facilities/inputs are required. The schedule shall be acceptable to BHEL for meeting their mile stone targets/schedule.

1.6.9 **GUARANTEE PERIOD**

Guarantee period of 12 months shall commence from the date of completion of the whole work certified by the BHEL Engineer.

1.6.10 **CIVIL WORKS SCHEDULE FOR 2X660MW ENNORE SEZ POWER PROJECT**

Tentative construction schedule for civil works is as mentioned below.

<u>Areas</u>	Completion from contractual date of commencement

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	of work (in months)
TH-1,JTB-3,4 including conveyers	
Super Structure	13 th month
Bridge portion (for pipe/equipment erection)-part	
Super Structure	13 th month
BLDG - ERZ , PMHZ-1	
Super Structure	12 th month
OUT SIDE ROADS & DRAINS	
Outside Plant drains	14 th month
Outside Plant roads	14 th month
Completion of balance areas and finishing works	14 th month
Completion of Material reconciliation Submission of final bill	15 th month

1.6.11 The above schedule is tentative. In case the project is to be advanced, the civil works in the scope of the contractor is to be advanced to meet the project requirement. No extra payment whatsoever shall be paid on this account.

The above schedule is for entire completion and handing over the structure/ Building to BHEL. Date of commencement of work shall be as mutually agreed at site between BHEL & contractor.

The foundations, pedestals, floors, etc, required for the mechanical equipment erection/ structural erection shall be handed over to BHEL progressively within the scheduled period given in the above table, as per the BHEL site requirement.

The left out minor finishing works shall also be completed and handed over to BHEL within the contract period.

1.6.12 The above time allowed for completion of work including Sundays and Holidays is from the date of commencement of work. Detailed program to be prepared by

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the bidder taking in to consideration of the COMPLETION SCHEDULES / site decision on drawings flow (latest) and submitted for BHEL's approval.

1.6.13 In order to meet the above schedule in general, and any other intermediate targets set, to meet customer/ project schedule requirements, Contractor shall arrange & augment all necessary resources from time to time on the instructions of BHEL Engineer.

1.6.14 The bidder must submit a detail schedule (area wise) for completion of work to meet civil work schedule given in CLAUSE 6.10 within 15 days from the date of issue of LOI.

1.6.15 The major activities as mentioned against the work schedule given in clause No.6.10 are to be indicated in detailed schedule which shall be prepared by the bidder.

1.6.16 RECORDS TO BE MAINTAINED AT SITE :

Record of Quantity of FREE/Chargeable items issued by BHEL must be maintained during contract execution. Also reconciliation statement to be prepared at regular intervals.

6.16.1 The under mentioned Records/ Log-books/ Registers applicable to be maintained.

6.16.2. Hindrance Register.

6.16.3 Site Order Book.

6.16.4 Test Check of measurements.

6.16.5 Cement Supply and Consumption Daily Register

6.16.6 Records of Test reports of Field tests.

6.16.7 Records of manufacture's test certificates.

6.16.8 Records of disposal of scraps generated during and after the work completion.

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TERMS OF PAYMENT

1.7.0 TERMS OF PAYMENT

1.7.0 Secured Advance

Not applicable

1.7.1 Advance for Mobilization

1.7.1.1 Interest bearing advance for Mobilization, limited to 5% of the contract value will be paid against submission of bank guarantee of at least 110% of the advance valid for the contract period, which will be recovered from the first running bill onwards. The advance for mobilization shall be paid as under.

1.7.1.2 2% of contract value after receipt of initial Security Deposit and additional security deposit as applicable if any, consortium SD as per relevant clauses in the GCC/TCC along with unqualified acceptance of detailed letter of intent.

1.7.1.3 1.5% of contract value on completion of site Mobilization of Machinery & T&P as given below and on certification by site in-charge for compliance.

1. Back hoe loaders like JCB – 1 Nos.
2. Excavator equivalent to capacity of Poclain CK90 or higher to suit the requirement of work at site – 1 No
3. Automatic concrete batching plant with printing facility (minimum capacity of 30 Cum/Hr each) with DG backup With minimum 2 Nos of silo per batching plant (100MT each)-1 no.
4. Transit mixers – 2 nos.
5. Truck mounted concrete mixer cum pump along with placing boom minimum 36 m high i.e. Concrete boom placer (36m)– 1 No.

1.7.1.4 1.5% of contract value on completion of site Mobilization of Machinery & T&P as given below in addition to the above, and on certification by site in-charge for compliance.

1. Crane of capacity 75MT– 1 Nos.
2. Crane of capacity 150MT – 1 No.

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3. Pick & carry crane (10T/ 12T capacity) – 2 No.
4. Civil Laboratory – 1 No.

1.7.1.5 Payment of the advance as specified herein and recovery of the advance will be as per clause 2.13 of GCC. Option of availing the interest bearing mobilization advance is left with the bidder. Mobilisation of concrete pump can be replaced by mobilization of additional concrete boom placer after approval of BHEL Engineer In-Charge.

1.7.2 Interim Payment

- 7.3.1 Interim bills in the form of monthly running bills prepared by the contractor in soft as well as Hard copies shall be based on the quantities executed and measured.
 - 7.3.2 95% item rate shall be released after completion of works certification by Engineer in charge.
 - 7.3.3 5% of the item rate shall be released after submission of the quality check formats as per the quality plan for the quantum of work billed and duly certified by engineer.
- 1.7.2.1 BHEL Site Engineer, at discretion, may operate the part rate of the items in line with GCC clause no. 2.23.1 (v). Payment for supply portion (subjected to approval of Engineer In-Charge) shall be made only after receipt of material at site.

1.7.3 METHOD OF MEASUREMENT

Mode of measurement shall be as per relevant clauses of technical specification of this tender. In case the same is not available the relevant IS 1200 in conjunction of IS code 3385 shall be adopted. In case the same is also not available, the standard procedure adopted in CPWD shall be adopted. In case the same is also not available in CPWD, the measurement of the work done will be based on the mutual agreement between BHEL and contractor. In all the above cases, the interpretation of BHEL will be final and binding to the contractor.

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1.7.4 NO CLAIM WHAT SO EVER MAY BE, WILL BE ENTERTAINED UNDER THIS CONTRACT, AFTER DULY SIGNING THE FINAL BILL ALONG WITH MEASURMENT BOOKS AND ACCEPTED BY BHEL.

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VOLUME-IA PART – I CHAPTER-VIII

TAXES AND DUTIES

1.8.1 Goods and service Tax (GST) & Cess

1.8.1.1 The successful bidder shall furnish proof of GST registration with GSTN Portal in the State in which the Project is being executed, covering the services under this contract. Registration should also bear endorsement for the premises from where the billing shall be done by the successful bidder on BHEL for this project/ work.

1.8.1.2 Contractor's price/rates shall be exclusive of GST & Cess (if applicable) (herein after termed as GST). Contractor shall submit to BHEL the GST compliant tax invoice/debit note/revised tax invoice on the basis of which BHEL will claim the input tax credit in its return. Since this is a works contract, the applicable rate shall be @ 18% GST, as applicable presently.

1.8.1.3 Bidder shall note that the GST Tax Invoice complying with GST Invoice Rules wherein the 'Bill To' details will be as below:

BHEL GSTN : 33AAACB4146P2ZL

NAME : BHARAT HEAVY ELECTRICALS LIMITED

ADDRESS : 2 X 660 MW ENNORE SEZ STPP,VAYALUR BR
PO,MINJUR PO,TAMILNADU - 601203

1.8.1.4 GST charged in the tax invoice/debit note/revised tax invoice by the contractor shall be released separately to the contractor only after contractor files the outward supply details in GSTR-1 on GSTN portal and input tax credit of such invoice is matched with corresponding details of outward supply of the contractor and has paid the GST at the time of filing the monthly return.

1.8.1.5 In case BHEL has to incur any liability (like interest / penalty etc.) due to

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denial/reversal / delay of input tax credit in respect of the invoice submitted by the contractor, for the reasons attributable to the contractor, the same shall be recovered from the contractor.

1.8.1.6 Further, In case BHEL is deprived of the Input tax credit due to any reason attributable to contractor, the same shall not be paid or Recovered if already paid to the contractor.

1.8.1.7 Tax invoice/debit Note/revised tax invoice shall contain all such particulars as prescribed in GST law and comply to the timelines for issue of the same. Invoices shall be submitted on time to the concerned BHEL Engineer In Charge.

1.8.1.8 TDS under GST (if/ as & when applicable) shall be deducted at prevailing rates on gross invoice value from the running bills.

1.8.1.9 E-way bills / Transit passes / Road Permits, if required for materials / T&P etc., bought into the project site is to be arranged by the Contractor only.

1.8.1.10 BHEL shall not reimburse any amounts towards any interest / penalty etc., incurred by contractor. Any additional claim at a later date due to issues such as wrong rates / wrong classification by contractor shall not be paid by BHEL.

1.8.2 All taxes and duty other than GST & Cess

The contractor shall pay all (except the specific exclusion viz GST & Cess) taxes, fees, license charges, deposits, duties, tools, royalty, commissions, Stamp Duties, or other charges / levies, which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract and the same shall not be reimbursed by BHEL. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.

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1.8.3 Statutory Variations

Statutory variations are applicable under the GST Acts, against production of proof. The changes implemented by the Central / State Government during the tenure of the contract viz. increase / decrease in the rate of taxes, applicability, etc. and its impact on upward revision / downward revision are to be suitably paid/ adjusted from the date of respective variation. The bidder shall give the benefit of downward revision in favour of BHEL. No other variations shall be allowed during the tenure of the contract.

1.8.4 New Taxes/Levies –

In case Government imposes any new levy / tax after submission of bid during the tenure of the contract, BHEL shall reimburse the same at actual on submission of documentary proof of payment subject to the satisfaction of BHEL that such new levy / tax is applicable to this contract.

1.8.5 Direct Tax

BHEL shall not be liable towards Income Tax of whatever nature including variations thereof arising out of this contract as well as tax liability of the bidder and their personnel. Deduction of tax at source at the prevailing rates shall be effected by BHEL before release of payment as a statutory obligation, unless exemption certificate is produced by the bidder. TDS certificate will be issued by BHEL as per the provisions of Income Tax Act.

Volume 1A Part-1 Chapter IX

ACCOUNTING OF MATERIALS ISSUE

1.9.1 ACCOUNTING OF MATERIALS ISSUE

The material issued to the contractor by BHEL will be accounted as follows:

1.9.2 ISSUE OF STEEL

The steel shall be issued to the contractor on the following basis:

- | | |
|--|--------------------------|
| (a) Structural Steel : | Weight basis (Unit – MT) |
| (b) Reinforcement Steel:
and Earthing rod (MS round). | Weight basis (Unit – MT) |

All the steel (structural, reinforcement, earthing MS rod,) issued by the BHEL shall be properly accounted for. The total quantity of steel required for the work will be calculated from the approved Bar Bending schedule, fabrication drawings, approved laps, chairs and lugs. The measurement for payment as well as for accounting shall be based on the sectional weights as indicated in the following IS specifications.

IS: 808-1964 Beams, Channels and Angles

IS: 1730-1961 Plates, Sheets and Strips/Flats

IS: 1732-1971 Rounds including deformed high yield strength bars.

In case any such sectional weights are not available in the above documents, the manufacturer recommendation shall be binding.

The steel issued to the contractor shall be mainly in standard length and sections as received from the supplier. However, the contractor shall be bound

TECHNICAL CONDITIONS OF CONTRACT (TCC)

to accept the steel in length as available in the project stores no claims for extra payment because of issue of non-standard length will be entertained.

The contractor shall satisfy himself of the quality and quantity of the materials at the time of taking delivery from BHEL stores. No claims whatsoever will be entertained by BHEL because of quality or quantity after the materials are taken by the contractor from BHEL stores.

The contractor shall submit to the engineer, a statement indicating estimated quantity of steel required during a quarter, at least two months in advance of the quarter. In addition, the contractor shall also furnish the estimated requirement of steel during a month by the third week of the previous month indicating his requirement.

Following shall be limit for the maximum quantity of BHEL issue materials that would be with the contractor at any point of time when work is in progress (excluding what has already been incorporated in the works).

SL. NO.	ISSUE OF MATERIALS	MAX. QTY IN CONTRACTOR'S STORE.
1.	Reinforcement Steel & Earthing rod MS round.	Requirement of one month
2.	Structural Steel	-----DO-----

Bidders to ensure that no lamination materials are taken over by them from BHEL. Fabrication wastage, if any due to above, shall not be compensated by BHEL.

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Bidder to note that steel materials required for MS Grating, Galvanised Grating, GI Handrail, Stainless Steel Handrail, Stop Lock Gate, Stationery Screen, fasteners like MS/HT/HSFG bolts/nuts, lock nuts, washers and foundation bolts, embedded items other than those supplied by BHEL, etc shall be supplied by the bidder. However, Bidder shall use the scrap materials for their use in the permanent works as embedment/inserts etc. after necessary store issue formalities and shall be accounted for monthly reconciliation.

1.9.3 RETURN OF MATERIALS

All surplus steel and all wastage materials will be taken back on weighment basis.

Surplus, unused and untampered steel shall be sorted section-wise and returned separately for a place directed by BHEL/Engineer within the project area. Return of such materials will not be entitled to any handling and incidental charges.

All wastage / scrap (including melting scrap, wastage, un usable scrap) shall be promptly returned to the stores and a receipt obtained for material accounting purposes. Return of such material will not be entitled to any transportation and incidental charge.

1.9.4 SCRAP & SERVICEABLE MATERAILS:

1. All Structural steel of length above 2 M except M.S. Plate shall be considered as serviceable materials provided the materials is in good and acceptable condition. Structural steel in length less than 2 M shall be treated as scrap.
2. Plates having both sides greater than 1 Metre OR if any side is less than 1 M but greater than 0.5 M and the total area is equal or greater than 2 Sq. Metre shall be considered as serviceable.

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3. All pipes measuring 2 M and above in length shall be treated as serviceable materials provided they are in good and acceptable condition. Pipe in less than 2 M length shall be treated as scrap.
4. All TMT measuring 3 M and above in length shall be treated as serviceable materials provided they are in good and acceptable condition. TMT in less than 3 M length shall be treated as scrap.

STEEL CONSUMPTION AND WASTAGE

1.9.4.1 REINFORCEMENT AND EARTHING ROD MS ROUND STEEL

CONSUMPTION AND WASTAGE.

a) CONSUMPTION.

The theoretical consumption of various sections and/or diameter of reinforcement and earthing rod steel shall be based on approved construction drawing and bar bending schedule. Weight shall be calculated considering the sectional weights as per Indian standards. No extra cost shall be payable to the contractor for any deviation in weights for the different procedures adopted for issue and calculation of the theoretical consumption including rolling tolerances.

- i) Actual consumption = Issue – Surplus.

Surplus = UN tampered, unused, uncut quantity of steel and

Serviceable materials as stipulated under clause “Scrap and Serviceable Materials (Refer Clause 1.8.3.1 above)” returned by the contractor to BHEL store along with relevant documents.

- ii) Wastage = Actual consumption – Theoretical consumption.

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b) WASTAGE

ALLOWABLE WASTAGE: - (+3%) of the theoretical consumption shall be considered as allowable wastage. Invisible wastage (max limit to 0.5%), if any, shall be considered to be included in the specified 3 % allowable wastage.

SL. REINFORCEMENT STEEL & NO. EARTHING ROD MS ROUND

BASIS OF ISSUE & RECOVERY RATE.

R-1	Theoretical consumption (without considering wastage and scrap or loss)	Free
R-2	Wastage limited to plus THREE percent (+3%) of aforesaid theoretical consumption (R-1) towards allowable wastage (cut pieces plus scrap to be returned to BHEL).	Free
R-3	Wastage beyond THREE percent (+3%) of the theoretical consumption above (R-1).	Penal Rate

1.9.4.2 STRUCTURAL STEEL, (ROLLED SECTION, PLATES ETC.) CONSUMPTION & WASTAGE.

A) CONSUMPTION: -

The theoretical consumption of various sections shall be based on approved drawings. Weights shall be calculated considering the sectional weights as per Indian standard. No extra shall payable to the contractor for any deviation in weights for the two different procedures adopted for issue and calculation of the theoretical consumption including rolling tolerances.

- i) Actual consumption = Issue – Surplus.
- ii) Surplus = UN tampered, unused, uncut quantity of steel and

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Serviceable materials as stipulated under clause “Scrap and Serviceable Materials (Refer Clause 1.8.3.1 above)” returned by the contractor to BHEL store along with relevant documents.

ii) Wastage = Actual consumption – Theoretical consumption.

b) WASTAGE

Allowable wastage: - 4% (FOUR percent) of the theoretical consumption shall be considered. Wastage shall be considered as cut pieces and scrap material, measured as per actual weightment basis. Invisible wastage (max limit to 0.5%), if any, shall be considered to be included in the specified 4 % allowable wastage.

SL. NO.	CONSUMPTION OF STRUCTURAL STEEL (ROLLED SECTION, PLATES & SS liner)	BASIS OF ISSUE
S-1	Theoretical consumption (without Considering any wastage, scrap or loss) as per spec. & drg.	Free
S-2	Wastage limited to plus Four percent (+4%) of the aforesaid theoretical consumption (S-1) towards allowable wastage.	Free
S-3	Wastage beyond Four percent (4%) of the aforesaid theoretical consumption (S-1).	Penal Rate

1.9.4.3 RECONCILIATION OF MATERIALS

The contractor shall submit a reconciliation statement of steel issued to him with each RA Bill.

At the time of submission of bills, the contractor shall properly account for the material issued to him as specified herein to the satisfaction of BHEL certifying that the balance material are available with contractor's custody at site.

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At the time of submission of bills by the contractor, if it is noticed by BHEL that the wastage is high and calls recovery at the penal rate, then, BHEL will proceed for recovery for the excess wastage as per penal recovery rates as specified.

The reference drawings for actual material consumption to be used for the purpose of reconciliation shall be drawings prepared by the BHEL and drawings approved by BHEL for fabrication works and such other drawings approved by BHEL. This shall also include the bar bending schedule prepared by the contractor and approve by BHEL.

1.9.4.4 RECOVERY OF MATERIAL

If wastage exceeds the specified limit, the recovery of excess wastage shall be made from monthly R/A Bill at the Penal Rate.

1.9.4.5 PENAL RATE OF MATERIALS

A	REINFORCEMENT STEEL Cold rolled steel, high strength, deformed bar or mild steel round bars including earthing rod MS round	Rs. 50,778/- per MT Excluding GST or other taxes & duties
B	STRUCTURAL STEEL MS plates, MS flats, rolled steel joists, channels, and angles, MS pipes, Chequered Plates, etc in sizes and lengths as available	Rs. 59,693/- per MT Excluding GST or other taxes & duties

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The scope of the work will comprise of but not limited to the following:

(All the works mentioned hereunder shall be carried out within the accepted rate unless otherwise specified.)

- 1.10.1 Bidders are requested to furnish the following at PSSR-HQ
- i) Security Deposit and additional Security Deposit.
 - ii) Unqualified Acceptance for Detailed LOI / Work Order.
 - iii) Rs.100/- Stamp Paper for preparation of Contract Agreement.
 - iv) Option exercised towards Performance Security Deposit for the subject contract as per Sl. No. 16 of Volume IA Part II Chapter 1 of TCC.
- 1.10.2 Bidders are requested to furnish the proof of documents for the following at the respective PSSR- Site
- i) PF Regn No.
 - ii) Labour License No.
 - iii) Workmen Insurance Policy No.
- 1.10.3 **In addition to the clause 2.8 of General Conditions of Contract (Volume-1C of Book-II) the contractor shall comply with the following.**
- 1.10.3.1 **BOCW Act & BOCW Welfare Cess Act**
- 1.10.3.1.1 The Contractor should Register their Establishment under BOCW Act 1996 read with rules 1998 by submitting Form I (Application for Registration of Establishment) and Form IV (Notice Of Commencement / Completion of Building other Construction Work) to the respective Labour Authorities i.e.,
- a. Assistant Labour Commissioner (Central) in respect of the project premises which is under the purview of Central Govt.–NTPC, NTPL etc.
 - b. Appropriate State authorities in respect of the project premises which is under the purview of State Govt.
- 1.10.3.1.2 The Contractor should comply with the provisions of BOCW Welfare Cess Act 1996 in respect of the work awarded to them by BHEL.
- 1.10.3.1.3 The contractor should ensure compliance regarding Registration of Building Workers as Beneficiaries, Hours of work, welfare measures and other conditions of service with particular reference to Safety and Health

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- measures like Safety Officers, safety committee, issue of Personal protective equipments, canteen, rest room, drinking water, Toilets, ambulance, first aid centre etc.
- 1.10.3.1.4 The contractor irrespective of their nature of work and manpower (Civil, Mechanical, Electrical works etc) should register their establishment under BOCW Act 1996 and comply with BOCW Welfare Cess Act 1996.
- 1.10.3.1.5 Contractor shall make remittance of the BOCW cess as per the Act in consultation with BHEL as per the rates in force (presently 1%). BHEL shall reimburse the same upon production of documentary evidence. However, BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.
- 1.10.3.1.6 Non-compliance to Provisions of the BOCW Act & BOCW Welfare Cess Act is not acceptable. In case of any non-compliance, BHEL reserves the right to withhold any sum as it deems fit. Only upon total compliance to the BOCW Act and also discharge of total payment of Cess under the BOCW Cess Act by the Contractor, BHEL shall consider refund of the amounts.
- 1.10.3.2 **PROVIDENT FUND**
- 1.10.3.2.1 The contractor is required to extent the benefit of Provident Fund to the labour employed by you in connection with this contract as per the Employees Provident Fund and Miscellaneous Provisions Act 1952. For due implementation of the same, you are hereby required to get yourself registered with the Provident Fund authorities for the purpose of reconciliation of PF dues and furnish to us the code number allotted to you by the Provident Fund authorities within one month from the date of issue of this letter of intent. In case you are exempted from such remittance an attested copy of authority for such exemption is to be furnished. Please note that in the event of your failure to comply with the provisions of said Act, if recoveries therefore are enforced from payments due to us by the customer or paid to statutory authorities by us, such amount will be recovered from payments due to you.
- 1.10.3.2.2 The final bill amount would be released only on production of clearance certificate from PF / ESI and labour authorities as applicable.
- 1.10.3.3 **OTHER STATUTORY REQUIREMENTS**
- 1.10.3.3.1 The Contractor shall submit a copy of Labour License obtained from the Licensing Officer (Form VI) u/r25 read with u/s 12 of Contract Labour

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- (R&A) Act 1970 & rules and Valid WC Insurance copy or ESI Code (if applicable) and PF code no. along with the first running bill.
- 1.10.3.3.2 The contractor shall submit monthly running bills along with the copies of monthly wages (of the preceding month) u/r78(1)(a)(1) of Contract Labour Rules, copies of monthly return of PF contribution with remittance Challans under Employees Provident Fund Act 1952 and copy of renewed WC Insurance policy or copies of monthly return of ESI contribution with Challans under ESI Act 1948 (if applicable) in respect of the workmen engaged by them.
- 1.10.3.3.3 The Contractor should ensure compliance of Sec 21 of Contract Labour (R&A) Act 1970 regarding responsibility for payment of Wages. In case of “Non-compliance of Sec 21 or non-payment of wages” to the workmen before the expiry of wage period by the contractor, BHEL will reserve its right to pay the workmen under the orders of Appropriate authority at the risk and cost of the Contractor.
- 1.10.3.3.4 The Contractor shall submit copies of Final Settlement statement of disbursement of retrenchment benefits on retrenchment of each workmen under ID Act 1948, copies of Form 6-A (Annual Return of PF Contribution) along with copies of PF Contribution Card of each member under PF Act and copies of monthly return on ESI Contribution – Form 6 under ESI Act 1948 (if applicable) to BHEL along with the Final Bill.
- 1.10.3.3.5 In case of any dispute pending before the appropriate authority under ID act 1948, WC Act 1923 or ESI Act 1948 and PF Act 1952, BHEL reserve the right to hold such amounts from the final bills of the Contractor which will be released on submission of proof of settlement of issues from the appropriate authority under the act.
- 1.10.3.3.6 In case of any dispute prolonged / pending before the authority for the reasons not attributable to the contractor, BHEL reserves the right to release the final bill of the contractor on submission of Indemnity bond by the contractor indemnifying BHEL against any claims that may arise at a later date without prejudice to the rights of BHEL.
- 1.10.3.3.7 DEPLOYMENT OF SKILLED / SEMI-SKILLED TRADESMEN**
The following clause is applicable in case the contract value / contract price is Rs. Five crores and above.
The contractor shall, at all stages of work deploy skilled / semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute / Industrial Training Institute / National Institute of Construction Management and Research (NICMAR),

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National Academy of Construction, CIDC or any similar reputed and recognized Institute managed / certified by State / Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled / semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs. 100 per such tradesman per day. Decision of Engineer-in-Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

1.10.4 **GENERAL**

1.10.4.1 **Site Visit by the Bidder**

1.10.4.1.1 The bidder shall, prior to submitting his tender for the work, visit and examine the site of works and its surroundings at his own expense, and obtain and ascertain for himself on his own responsibility all information that may be necessary for preparing his tender and entering into a contract, and take the same into account in the quoted contract price for the work.

1.10.4.1.2 The bidder shall satisfy themselves about the following factors:

- (i) Site conditions including access to the site, existing and required roads and other means of transport/communication for use by him in connection with the work including diverting and re-routing of services.
- (ii) Requirement and availability of land and other facilities of his enabling works, establishment of his nursery, office, stores etc.
- (iii) Ground conditions including those bearing upon transportation, disposal, handling and storage of materials required for the work or obtained therefrom.
- (iv) Source and extent of availability of suitable materials, including water etc., and labour (skilled and unskilled) required for work, and laws and regulations governing their use and employment.

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- (v) Geological, meteorological, topographical and other general features of the site and its surroundings as are pertaining to and needed for the performance of the work.
 - (vi) The limit and extent of surface and subsurface water to be encountered during the performance of the work, and the requirement of drainage and pumping.
 - (vii) The type of equipment and facilities needed, for and in the performance of the work;
 - (viii) The extent of lead and lift required for the work in complete form over the entire duration of the contract, and
 - (ix) All other information pertaining to and needed for the work including information as to the risks, contingencies and other circumstances which may influence or affect the work or the cost thereof under this contract.
- 1.10.4.1.3 The bidder should note that information, if any, in regard to the local conditions, as contained in these tender documents, has been given to tenderer merely for guidance and is not warranted to be complete.
- 1.10.4.1.4 A bidder shall be deemed to have full knowledge of the site, whether he inspects it or not, and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
- 1.10.4.1.5 The bidder and any of his personnel or agents will be granted permission by the Site-In-Charge or his authorized nominee, on receipt of formal application in respect thereof a week in advance of the proposed date of inspection of site, to enter upon his premises and lands for purpose of such inspection, but only on the express condition that the tenderer (and his personnel and agents) will relieve and indemnify the Employer (and his personnel and agents) from and against all liability in respect thereof and will be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expenses however caused which, but for the exercise of such permission, would not have arisen.
- 1.10.4.2 The work covered under this specification is of highly sophisticated nature, requiring the best quality workmanship, engineering and construction management. The contractor must have adequate quantity of tools, construction aids, equipments etc., in his possession. He must also have on his rolls adequate trained, qualified and experienced supervisory staff and skilled personnel.

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- 1.10.4.3 Wherever Construction sequences are furnished by BHEL, the contractor shall follow the same sequence. Contractor shall execute the supply and works as per sequence prescribed by BHEL at site engineer. If required by BHEL, the contractor shall change the sequence of his operation so that work on priority sectors can be completed within the projects schedule. The contractor shall afford maximum assistance to BHEL in this connection without causing delay to agreed completion date. No claims for extra payment from the contractor will be entertained on the grounds of deviation from the methods of execution of similar job in any other site or for any reasons whatsoever.
- 1.10.4.4 The Contractor may have to execute work in such a place and condition where other agencies also will be under such circumstances. However, completion time for construction, agreed will be subject to the condition that contractor's work is not hampered by the agencies.
- 1.10.4.5 Contractor has to work in close co-ordination with other erection agencies at site. BHEL engineer will co-ordinate area clearance. In a project of such magnitude, it is possible that the area clearance may be less / more at a particular given time. Activities and construction program have to be planned in such a way that the milestones are achieved as per schedule / plans. Contractor shall arrange & augment the resources accordingly.
- 1.10.4.6 The contractor must obtain the signature and permission of the security personnel of the customer for bringing any of their materials inside the site premises. Without the Entry Gate Pass these materials will not be allowed to be taken outside. Surplus materials including steel item brought at site by the contractors with proper documentation and Gate pass, shall be allowed to taken out of the project premises after completion of relevant works, on certification by BHEL in charge.
- 1.10.4.7 It is not the intent to specify herein all details of all material. Any item related this work not covered by this but necessary to complete the system will be deemed to have been included in the scope of the work.
- 1.10.4.8 Site testing wherever required shall be carried out for all items / materials installed by the contractor to ensure proper installation and functioning in accordance with drawings, specifications and manufacturer's recommendations.
- 1.10.4.9 Contractor shall, transport all materials to site and unload at site / working area for inspection and checking. All material handling equipment required shall be arranged by the contractor.

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- 1.10.4.10 Contractor shall retain all T&P / Testing instrument / Material handling equipment's etc. at site as per advice of BHEL engineer and same shall be taken out from site only after getting the clearances from engineer in charge.
- 1.10.4.11 The contractor will be responsible for the safe custody and proper accounting of all materials in connection with the work. If the contractor has drawn materials in excess of design requirements, recoveries will be effected for such excess draws at the rate prescribed by manufacturing units.
- 1.10.4.12 The contractor at his cost shall arrange necessary security measures for adequate protection of his machinery, equipment, tools, materials etc. BHEL shall not be responsible for any loss or damage to the contractor's construction equipment and materials. The contractor may consult the Engineer-in-Charge on the arrangements made for general site security for protection of his machinery equipment tools etc.
- 1.10.4.13 The work shall be executed under the usual conditions without affecting power plant construction / operation and in conjunction with other operations and contracting agencies at site. The contractor and his personnel shall co-operate with the personnel of other agencies, co-ordinate his work with others and proceed in a manner that shall not delay or hinder the progress of work as a whole.
- 1.10.4.14 Contractor has to clear the front, expeditiously and promptly as instructed by BHEL Engineer for other agencies, like Boiler, piping, Turbine, Generator erection, Cabling, instrumentation, insulation etc., to commence their work from / on the equipments coming under this scope. Sometimes, more than one agencies may have to work in same location. Sometimes it may be required to re-schedule the activities to enable other agencies to commence / continue the work so as to keep the overall project schedule.
- 1.10.4.15 The contractor is strictly prohibited from using BHEL's regular components like angles, channels, beams, plates, pipe / tubes, and handrails etc. for any temporary supporting or scaffolding works or as bed for pre-assembly works. Contractor shall arrange himself all such materials. In case of such misuse of BHEL materials, a sum as determined by BHEL engineer will be recovered from the contractor's bill. The decision of BHEL engineer is final and binding on the contractor.

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- 1.10.4.16 Contractors shall ensure that all their Staff / Employees are exposed to periodical training programme conducted by qualified agencies / personnel on ISO 9001 – 2008 Standards.
- 1.10.4.17 The terminal points decided by BHEL are final and binding on the contractor for deciding the scope of work and effecting the payment for the work done up to the terminals.
- 1.10.4.18 For the purpose of planning, contractor shall furnish the estimated requirement of power (month wise) for execution of work in terms of maximum KW demand.
- 1.10.4.19 All the necessary certificates and licenses required to carry out this scope of work are to be arranged by the contractor then and there at no extra cost.
- 1.10.4.20 Crane operators deployed by the contractor shall be tested by BHEL before he is allowed to operate the cranes.
- 1.10.4.21 Upon completion of daily work, the contractor shall remove from the vicinity of work all scrap packing materials, rubbish, unused and other materials and deposit them in places to be specified by BHEL Engineer.
- 1.10.4.22 During the course of erection, if the progress is found unsatisfactory, or if the target dates fixed from time to time for every milestone are to be advanced, or in the opinion of BHEL, if it is found that the skilled workmen like fitters, operators, technicians employed are not sufficient BHEL will induct required additional workmen to improve the progress and recover all charges incurred on this account including all expenses together with BHEL overheads from contractor's bills.
- 1.10.4.23 On completion of work, all the temporary buildings, structures, pipe lines, cables etc. that were constructed / erected by the contractor shall be dismantled and leveled and debris shall be removed as per instructions of BHEL by the contractor at his cost. In the event of his failure to do so, the expenditure towards clearance of the same will be recovered from the contractor. The decision of BHEL Engineer in this regard is final.
- 1.10.4.24 DOCUMENTATION
 - 1.10.4.24.1 RECORDS TO BE MAINTAINED AT SITE:
 - 1.10.4.24.1.1 Record of Quantity of FREE / Chargeable items issued by BHEL must be maintained during contract execution. Also reconciliation statement to be prepared at regular intervals.
 - 1.10.4.24.1.2 The under mentioned Records/ Log-books/ Registers applicable to be maintained.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- a) Hindrance Register.
 - b) Site Order Book.
 - c) Test Check of measurements.
 - d) Cement Supply and Consumption Daily Register
 - e) Records of Test reports of Field tests.
 - f) Records of manufacture's test certificates.
 - g) Records of disposal of scraps generated during and after the work completion.
- 1.10.4.24.2 Other documents / records as specified in chapter XI -Progress of work in PART- I of Technical conditions of Contract Volume IA (Volume I Book I).
- 1.10.4.24.3 L 3 schedule as specified in chapter VI – TIME SCHEDULE in PART- I of Technical conditions of Contract Volume IA (Volume I Book I).
- 1.10.4.25 SITE INSPECTION
- 1.10.4.25.1 The contractor shall maintain at site a joint protocol for recording actual measurement of work carried out at site, inspection and witnessing of various tests conducted by the contractor.
- 1.10.4.25.2 The owner / employer or his authorized agents may inspect various stages of work during the currency of the contract awarded to him. The contractor shall make necessary arrangements for such inspection and carry out the rectification pointed out by the owner / employer without any extra cost to the owner / employer. No cost whatsoever such duplication of inspection of work be entertained.

VOLUME-IA PART – I CHAPTER – XI PROGRESS OF WORK

The scope of the work will comprise of following but not limited to the following:

1.11.0 PROGRESS AND MONITORING OF WORK

1.11.1 Refer forms F -14 to F-18 of volume I D of volume -I book-II. Plan and review will be done as per the formats.

1.11.2 Contractor is required to draw mutually agreed monthly construction programs in consultation with BHEL well in advance monthly as per the Form-14. Contractor shall ensure achievement of agreed program and shall also timely arrange additional resources considered necessary at no extra cost to BHEL. Progress review meetings will be held at site during which actual progress during the week vis-a-vis scheduled program shall be discussed for actions to be taken for achieving targets. Contractor shall also present the program for subsequent week. The contractor shall constantly update / revise his work program to meet the overall requirement. All quality problems shall also be discussed during above review meetings. Necessary preventive and corrective action shall be discussed and decided upon in such review meetings and shall be implemented by the contractor in time bound manner so as to eliminate the cause of nonconformities.

1.11.3 The contractor shall submit daily, weekly and monthly progress reports, manpower reports, materials reports, consumables (gases / electrodes / ferules

TECHNICAL CONDITIONS OF CONTRACT (TCC)

/ lugs) report, T&Ps availability report and other reports as per Performa considered necessary by the Site Engineer as per the BHEL formats.

1.11.4 The contractor shall submit weekly / fortnightly / monthly statement report regarding consumption of all consumables for cost analysis purposes.

1.11.5 The monthly report ending on 24th of every month shall be submitted as a booklet and shall contain the following details :-

- a) Colour Progress photographs to accompany the report should be submitted.
- b) Construction progress in terms of quantity, CUM, etc., completed as relevant to the respective work areas against planned.
- c) Site Organization chart of engineers & supervisors as on 24th of the month with further mobilization plan
- d) Category- wise man hours engaged during the previous month under the categories like fitters, electricians, welders, riggers, khalasis, grinder-men, gas-cutters, crane operators, store keepers, lab technicians, helpers, security etc. Data will be spilt up under the work area .
- e) Consumables report giving consumption of all types of gases and electrodes during the previous month (as applicable).
- f) Availability report of cranes/T&Ps
- g) Safety implementation report in the format
- h) Pending material and any other inputs required from BHEL for activities planned during the subsequent month.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- 1.11.6 The manpower reports shall clearly indicate the manpower deployed, category wise specifying also the activities in which they are engaged.
- 1.11.7 During the course of construction, if the progress is found unsatisfactory, or if the target dates fixed from time to time for every milestone are to be advanced, or in the opinion of BHEL, if it is found that the skilled workmen like fitters, operators, technicians etc employed are not sufficient BHEL will induct required additional workmen to improve the progress and recover all charges incurred on this account including all expenses together with BHEL overheads from contractor's bills.
- 1.11.8 It is the responsibility of the contractor to provide all relevant information on a regular basis regarding construction progress, labour availability, equipment deployment, testing, etc.
- 1.11.9 The progress reports shall indicate the progress achieved against plan, indicating reasons for delays, if any. The report shall also give remedial actions which the contractor intends to make good the slippage or lost time so that further works can proceed as per the original plan the slippages do not accumulate and affect the overall programme.
- 1.11.10 The contractor to reflect actual progress achieved during the month and will be submitted to BHEL, so that slippages can be observed and necessary action taken in order to ensure that the situation does not get out of control will update the construction schedule forming part of this contract each month.

VOLUME-IA PART –I CHAPTER – XII

BILL OF QUANTITY

- 1.12.1 BOQ will be submitted through online tendering system
- 1.12.2 Bidders shall only quote “Total amount” in the format given in PART-B of the price bid. Any other entry elsewhere in the price bid shall be treated as Null and Void.
- 1.12.3 The above mentioned “Total amount” is for the entire Bill of Quantity (BOQ) given in Part-C of the Price bid.
- 1.12.4 BHEL has the pre-fixed the weightages for the amount of individual items of Bill of Quantity with respect to the “Total amount” in Part-C.
- 1.12.5 Based on the pre-fixed weightages, the amount for the individual items of the Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
- 1.12.6 Based on the quantities of individual item and the amount arrived in SI NO. 5 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
- 1.12.7 Bidder to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed at the unit rate arrived at as per SI NO. 10.6 above.
- 1.12.8 The quantities given in the contract are tentative and may change to any extent (both in plus side and minus side). The derived item rates (as mentioned above) for individual items shall remain firm irrespective of any variations in the individual quantities. No compensation becomes payable in case the variation of the final executed contract value is within the limit of Minus (-) 30% of awarded contract value.

VOLUME-IA PART –I CHAPTER –XIII

MATERIAL HANDLING

- 1.13.1. Open land as available shall be provided by BHEL on free of cost basis as provided by TANGEDCO. Contractor shall maintain one centralized fenced store cum bar bending yard at his own cost. Hard surfacing of this yard and all round drain shall be carried out by the contractor at his own cost within the quoted rate. Batching plant area, shall be provided nearer plant premises and contractor shall make use of the area for installation and operation of the Batching Plant at his own cost. The bidder shall make complete arrangement of necessary security personnel, to safeguard all such materials in his custody at his own cost. Materials issued will be used only for construction of permanent work. The contractor shall take care of material issued by BHEL and shall protect the same from theft, damage and weathering at his own cost.
- 1.13.2. The system for receipt, storage & issue of materials shall be available with vendors for easy traceability.
- 1.13.3. Periodic audit of system of purchasing, storing and issue, etc. will have to be carried out by the vendors. BHEL will also audit the same.
- 1.13.4. The contractor shall construct waterproof cement store (capacity 400MT) for initial period for storing and stacking of cement at his own cost, CGI/ asbestos roofing (slope) with brick masonry wall, PCC flooring. Materials required for the same shall be provided by contractor at his own cost. Cement has to be kept over wooden raised platform. Stacking of cement is to be done as per IS codes with proper illumination and locking arrangements.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- 1.13.5. The contractor shall in no case be entitled for any compensation or damages on account of any delay in supply or non-supply thereof for all or any such material.
- 1.13.6. Clotting of cement and excessive rusting of steel must be avoided. In case, due to any cause attributable to the contractor, rusting of steel for BHEL issued steel occur rendering the same unusable, then such quantity of cement steel shall be recovered from the interim payment at the penal rate specified in the tender.
- 1.13.7. The contractor shall maintain proper store account for all the BHEL issued materials and shall give three copies of computerized reconciliation statement of such account to the BHEL with each running bill.
- 1.13.8. All TMT shall be stacked over sleeper's diameter wise.
- 1.13.9. Materials shall not under any circumstances taken out of the project site unless otherwise permitted by BHEL.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART-II CHAPTER-1

CORRECTIONS / REVISIONS IN SPECIAL CONDITIONS OF CONTRACT, GENERAL CONDITIONS OF CONTRACT AND FORMS & PROCEDURES

SI No: 1

Clause 4.1.11 of SCC is deleted.

SI No: 2:

OCCUPATIONAL HEALTH, SAFETY & ENVIRONMENT MANAGEMENT/ QUALITY ASSURANCE PROGRAMME

The following clauses in Occupational Health, Safety & Environment Management / Quality Assurance Programme published in Chapter-IX of Special Conditions of Contract (Volume I Book-II) is revised as under.

Chapter IX Clause 9.1 is modified as below:

Contractor will comply with HSE (Health, Safety & Environment) requirements of BHEL as per the "HSE Plan for Site Operations by Subcontractor" (Document No. HSEP: 14 Rev00) enclosed.

Chapter IX Clause 9.1.1 to 9.1.25 stands deleted.

Chapter IX Clause 9.2 to 9.62 stands deleted.

SI No: 3:

Clause No. 10.5 on RA Bill Payments, in Special Conditions of Contract (SCC), Volume-IB, Book-II, is revised as under:

The payment for running bills will normally be released within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc., and other dues in the meanwhile.

SI No: 4

The EARNEST MONEY DEPOSIT (EMD) clause 1.9 published in General Conditions of Contract (Volume I Book-II) is revised as under.

1.9 EARNEST MONEY DEPOSIT

1.9.1 Every tenderer must furnish the prescribed amount of Earnest Money Deposit (EMD) in the manner described herein.

- i. Electronic Fund Transfer credited in BHEL account (before tender opening).

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- ii. Earnest Money Deposit (EMD) shall also be paid directly to BHEL-PSSR through Online EMD payment portal, before tender opening, by following these steps.
 1. Visit www.onlinesbi.com -> Go to State Bank Collect (In the tab section)
 2. Click Check box to proceed for payment -> Click on Proceed
 3. Under State of Corporate/Institution -> Select Tamilnadu
 4. Under Type of Corporate/Institution -> Select PSU – Public Sector Undertaking -> Go
 5. Under PSU – Public Sector Undertaking Name -> Select BHEL PSSR CHENNAI and Submit
 6. Under Select Payment Category -> SCT Tender EMD & Tender Fees
- iii. Banker's cheque or Pay order or Demand Draft in favour of 'Bharat Heavy Electricals Limited' (along with offer) and payable at 'BHEL-PSSR, EVR Periyar Building, 690, Anna Salai, Nandanam, Chennai – 600035'
- iv. Fixed Deposit Receipt (FDR) 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).

Note:

- a) In addition to above, the EMD amount in excess of Rs. Two Lakh may be accepted in the form of Bank Guarantee from Scheduled bank. **(Explanatory statement: EMD upto Rs. 2 Lakhs can be submitted in any of the form as in (i) to (iv) above, and where EMD in a tender is more than Rs. 2 Lakhs, then first part of EMD of Rs. 2 Lakhs can be submitted in (i) to (iv) above and remaining amount over and above Rs. 2 Lakhs by way of BG).** The Bank Guarantee in such cases shall be valid for at least six months from the scheduled due date of tender submission mentioned in the Notice Inviting Tender. Proforma of BG for EMD enclosed.
- b) Date of Expiry of Claim shall be minimum of 60 days after the validity of Bank Guarantee.
- c) Proforma for Bank Guarantee for EMD is enclosed with this Tender.

Bank Details for the purpose of Taking EMD BG

Name and Address of Beneficiary:	Bharat Heavy Electricals Ltd. #690, EVR Periyar Building, Nandanam, Anna Salai, Chennai - 35
Name of Bank of Client :	State Bank Of India

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Bank Branch Address:	SBI Saidapet Branch, EVR Periyar Building, Nandanam, Anna Salai, Chennai - 35
IFSC Code :	SBIN0000912
Account No. :	10610819499

Details for SFMS (Structured Financial Messaging System) transmission of BG

Bank and Branch	SBI TFCPC Branch
Branch Code	5056
IFSC Code	SBIN0005056

- 1.9.2 EMD shall not carry any interest.
- 1.9.3 EMD by the Tenderer will be forfeited as per NIT Conditions, if:
- After opening the tender and within the offer validity period, the Tenderer revokes his tender or makes any modification in his tender which is not acceptable to BHEL.
 - The Contractor fails to deposit the required Security deposit or commence the work within the period as per LOI/Contract
- 1.9.4 EMD given by all unsuccessful tenderers will be refunded normally within 15 days of award of work.
- 1.9.5 EMD of successful tenderer will be retained as part of Security Deposit.
- 1.9.6 EMD by the tenderer shall be withheld in case any action on the tenderer is envisaged under the provisions of extant" Guidelines on Suspension of Business dealings with suppliers/contractors" and forfeited / released based on the action determined under these guidelines.

SI No: 5

SECURITY DEPOSIT The SECURITY DEPOSIT (SD) clause 1.10 published in General Conditions of Contract (Volume I Book-II) is revised as under.

1.10 Security Deposit:

- 1.10.1 Upon acceptance of Tender, the successful Tenderer should deposit the required amount of Security Deposit for satisfactory completion of work, as given below:
- 1.10.2 The total amount of Security Deposit will be 5% of the contract value. EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security Deposit.
- 1.10.3 The security Deposit should be furnished before start of the work by the contractor.
- 1.10.4 Modes of deposit:

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- 1.10.4.1 The balance amount to make up the required Security Deposit of 5% of the contract value may be furnished in any one of the following forms
- 1Cash (as permissible under the extant Income Tax Act)
 - 2Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL
 - 3Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format for Security Deposit shall be in the prescribed formats.
 - 4Fixed Deposit Receipt issued by Scheduled Banks/ Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
 - 5Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Contractor furnishing the security and duly endorsed/ hypothecated/ pledged, as applicable, in favour of BHEL and discharged on the back)
- (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)*
- 1.10.5 At least 50% of the Security Deposit including the EMD should be deposited in any form as prescribed before start of the work and the balance 50% of the Security Deposit will be recovered by deducting 10% of the gross amount progressively from each running bills of the contractor till the total amount of the required Security Deposit is collected.
- 1.10.6 The recoveries made from running bills (cash deduction towards balance SD amount) will be released against submission of equivalent Bank Guarantee in the prescribed formats, but only once, before completion of work.
- 1.10.7 The Security Deposit shall not carry any interest.
- 1.10.8 If the value of work done at any time exceeds the contract value, the amount of Security Deposit shall be correspondingly enhanced and the excess Security Deposit due the enhancement shall be immediately deposited by the Contractor or recovered from payment/s due to the Contractor.
- 1.10.9 The validity of Bank Guarantees towards Security Deposit shall be initially upto the completion period as stipulated in the Letter of Intent/Award + 3 months, and the same shall be kept valid by proper renewal till the acceptance of Final Bills of the Contractor, by BHEL

TECHNICAL CONDITIONS OF CONTRACT (TCC)

1.10.10 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.

1.10.11 Penalty for Delayed Remittance of Security Deposit

If the contractor fails to furnish SD before start of work, in line with 1.10.3 above, Simple Interest against delayed remittance of the Security Deposit shall be deducted from the sub-contractor at the rate of SBI PLR + 2% on the value of 50% SD of the contract, for the delayed period (i.e., period between start of work and date of remittance of Initial SD, i.e., atleast 50% of SD). In case, the delayed period has different SBI PLR rates, Simple Interest shall be calculated based on different rates by considering the corresponding time period. On similar lines Penalty shall be levied for delayed remittance of Additional Security Deposit (if applicable).

Note: - Bank details & SFMS details provided above in SI. No. 04 Earnest Money Deposit) may be used for the purpose of arranging Bank Guarantees towards Security Deposit / Additional Security Deposit also.

SI No: 6

Clause 2.7.2 and 2.7.3 in GCC regarding Rights of BHEL is revised as under:

2.7.2.

- 2.7.2.1 To terminate the contract or withdraw portion of work and get it done through other agency, at the risk and cost of the contractor after due notice of a period of 14 days' by BHEL in any of the following cases:
- i. Contractor's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor including unexecuted portion of work does not appear to be executable within balance available period considering its performance of execution.
 - ii. Withdrawal from or abandonment of the work by contractor before completion of the work as per contract.
 - iii. Non-completion of work by the Contractor within scheduled completion period as per Contract or as extended from time to time, for the reasons attributable to the contractor.
 - iv. Termination of Contract on account of any other reason (s) attributable to Contractor.
 - v. Assignment, transfer, subletting of Contract without BHEL's written permission.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- vi. Non-compliance to any contractual condition or any other default attributable to Contractor.

Risk & Cost Amount against Balance

Work:

Risk & Cost amount against balance work shall be calculated as follows: Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work (*) as per rates of new contract

B= Value of Balance scope of Work (*) as per rates of old contract being paid to the contractor at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

* Balance scope of work (in case of termination of contract):

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for

'Termination of Contract', shall be taken as balance scope of Work for calculating risk & cost amount. Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: In case portion of work is being withdrawn at risk & cost of contractor instead of termination of contract, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work' for calculating Risk & Cost amount.

LD against delay in executed work in case of Termination of Contract:

TECHNICAL CONDITIONS OF CONTRACT (TCC)

LD against delay in executed work shall be calculated in line with LD clause no. 2.7.9 of GCC, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of "LD against delay in executed work in case of termination of contract" is given below.

- i). Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- ii). Let the value of executed work till the time of termination of contract = X
- iii). Let the Total Executable Value of work for which inputs/fronTS were made available to contractor and were planned for execution till termination of contract = Y
- iv). Delay in executed work attributable to contractor i.e. $T2 = [1 - (X/Y)] \times T1$
- v). LD shall be calculated in line with LD clause (clause 2.7.9) of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

2.7.2.2 In case Contractor fails to deploy the resources as per requirement, BHEL can deploy own/hired/otherwise arranged resources at the risk and cost of the contractor and recover the expenses incurred from the dues payable to contractor. Recoveries shall be actual expenses incurred plus 5% overheads or as defined in TCC.

2.7.3 **Recoveries arising out of Risk & Cost and LD or any other recoveries due from Contractor**

Following sequence shall be applicable for recoveries from contractor:

- a) Dues available in the form of Bills payable to contractor, SD, BGs against the same contract.
- b) Demand notice for deposit of balance recovery amount shall be sent to contractor, if funds are insufficient to effect complete recovery against dues indicated in (a) above.
- c) If contractor fails to deposit the balance amount to be recovered within the period as prescribed in demand notice, following action shall be taken for balance recovery:
 - i) Dues payable to contractor against other contracts in the same Region shall be considered for recovery.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- ii) If recovery cannot be made out of dues payable to the contractor as above, balance amount to be recovered, shall be informed to other Regions/Units for making recovery from the Unpaid Bills/Running Bills/SD/BGs/Final Bills of contractor.
- iii) In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against contractor.

SL No: 7

In addition to clause 2.7.9 of General Conditions of Contract (GCC), a New clause 2.7.9.1 is added as below.

2.7.9.1 Penalty for Intermediate Milestones

- 2.7.9.1.1 M1 and M2 shall be intermediate Milestones for each unit of this work.
- 2.7.9.1.2 In case of slippage of these identified Intermediate Milestones, Delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to Form 14.
- 2.7.9.1.3 Incase delay in achieving M1 milestone is solely attributable to the contractor, 0.5% per week of executable contract value* limited to Maximum 2% of executable contract value will be withheld.
- 2.7.9.1.4 Incase delay in achieving M2 milestone is solely attributable to the contractor, 0.5% per week of executable contract value* limited to maximum 3% of executable contract value will be withheld.
- 2.7.9.1.5 Amount already withheld, if any, against slippage of M1 milestone, shall be released only if there is no delay attributable to contractor in achievement of M2 milestone.
- 2.7.9.1.6 Amount required to be withheld on account of slippage of identified intermediate milestone(s) shall be withheld out of respective milestone payment and balance amount (if any) shall be withheld @10% of RA Bill amount from subsequent RA bills.
- 2.7.9.1.7 Final deduction towards LD (if applicable), on account of delay attributable to contractor shall be based on final delay analysis on completion / closure of contract. Withheld amount, if any due to slippage of intermediate milestones shall be adjusted against LD or released as the case may be.
- 2.7.9.1.8 In case of termination of contract due to any reason attributable to contractor before completion of work, the amount already withheld

TECHNICAL CONDITIONS OF CONTRACT (TCC)

against slippage of intermediate milestones shall not be released and be converted in to recovery.

Note: *Executable contract value-value of work for which inputs/fronts were made available to contractor and were scheduled for execution till the date of achievement of that milestone.

SL No: 8

OVERRUN COMPENSATION (ORC)

The **OVERRUN COMPENSATION (ORC)** clause 2.12 published in General Conditions of Contract (Volume I Book-II) is revised as under.

2.12 OVERRUN COMPENSATION (ORC)

2.12.1 ORC during original contract period: No ORC shall be applicable during the original contract period.

2.12.2 ORC during extended period for the reasons solely attributable to contractor: No ORC shall be applicable during the extended period granted for the reasons solely attributable to contractor and work executed during this period shall be paid as per original contract rates.

2.12.3 ORC during extended period for the reasons not attributable to contractor: ORC shall be payable as per following procedure:

2.12.3.1 For initial period of twelve months of extended period, ORC rate applicable over executed value shall be 5%. For every subsequent period of twelve months, ORC rate shall be further increased by 5% over the previous rate. For example, ORC rates applicable for initial period of 12 months and subsequent period of 12 months are given below.

Sl. No.	Extended Period for the reasons attributable to BHEL	ORC rate applicable over executed value
1	First 12 months	5%
2	13 th -24 th month and so on	10.25% $\{[(1.05 \times 1.05) - 1] \times 100\}$

This process of increasing ORC rate for each subsequent period of 12 months shall continue till applicability of ORC.

2.12.3.2 On completion of original contract period as well as on completion of each subsequent period of twelve months i.e. at the time of change in applicable ORC rate, Delay Analysis shall be carried out and percentage shortfall attributable to both BHEL & Contractor shall be calculated.

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2.12.3.3 For the purpose of calculation of ORC, executed value of work in the month shall be divided in Part-1 and Part-2 in proportion of percentage shortfall attributable to BHEL and contractor respectively, based on the last delay analysis as worked out in 2.12.3.2.

ORC shall be payable only on Part-1 and no ORC shall be payable on Part-2.

Value of Part-1 shall be further limited to the value of actual inputs provided by BHEL i.e. "Plan - Shortfall attributable to BHEL" for the month, as per Form-14 for calculation of ORC.

2.12.3.4 Payment of ORC amount shall be further regulated as follows:

- (i) 50% of the ORC is allocated for deployment of matching resources (with weightages) agreed as per the joint programme drawn vide 2.11.4. ORC Payment against resources shall be calculated in proportion to percentage of resources actually deployed w.r.t. planned resources, as per Form-14.
- (ii) 50% of ORC is allocated for achieving of planned progress agreed as per the joint programme drawn vide 2.11.4. ORC Payment shall be reduced in proportion to percentage shortfall attributable to contractor w.r.t. – "Plan - Shortfall attributable to BHEL" for the month, as per Form-14.

2.12.3.5 The maximum amount of ORC payable for the month shall be limited to Rs. 5,00,000/-.

2.12.3.6 In case, there is no shortfall attributable to contractor for the month and also contractor has deployed the resources as agreed in Form-14 but ORC amount payable for the month worked out as per procedure mentioned in clause 2.12.3.3, 2.12.3.4 and 2.12.3.5, is less than Rs.1,00,000/-, then ORC amount payable for the month shall be Rs.1,00,000/- otherwise ORC amount payable for the month shall remain same.

2.12.3.7 In case execution is on **HOLD** (Other than Force Majeure), ORC shall be payable as per following:

- i). Contractor has not been permitted by BHEL to de-mobilize
 - a) ORC amount of Rs. 1,00,000/- per month shall be applicable during the period of HOLD provided resources as planned are deployed (not demobilized) during the period of hold.
 - b) Subsequent to lifting of HOLD, Period of HOLD shall not be excluded in calculation of period for deciding applicable ORC rate as per clause 2.12.3.1.

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- ii). Contractor has been permitted to demobilize and to remobilize after lifting of HOLD
 - a) No ORC shall be payable to contractor for the period of HOLD.
 - b) Subsequent to lifting of HOLD, Period of HOLD shall not be excluded in calculation of period for deciding applicable ORC rate as per clause 2.12.3.1.
- 2.12.3.8 In case **Force Majeure** is invoked:
 - i). No ORC shall be applicable during the period of Force Majeure.
 - ii). Subsequent to revocation of Force Majeure, period of Force Majeure shall be excluded in calculation of period for deciding applicable ORC rate as per clause 2.12.3.1.
- 2.12.4 Applicability of ORC: ORC shall not be applicable for following activities.
 - (i) Area cleaning, removal of temporary structures and return of scrap.
 - (ii) Punch list points / pending points liquidation pending due to reasons attributable to contractor
 - (iii) Submission of "As built Drawing"
 - (iv) Material Reconciliation
 - (v) Completion of Contract Closure formalities like HR Clearance/ No dues from various dept./ Statutory Authorities etc.
- 2.12.5 Total Over Run Compensation shall be limited to 10% of the cumulatively executed contract value till the month (excluding Taxes and Duties if payable extra). For this purpose, executed contract value excludes PVC, ORC and Extra/Supplementary Works.

SI No: 9

Clauses 2.13.1, 2.13.6 & 2.13.7 in GCC on Interest Bearing Recoverable Advances,

- 9.1 Clauses 2.13.1, 2.13.6 & 2.13.7 in GCC is revised as under:
 - 9.1.1 Clause 2.13.1 in GCC is revised as "Normally no advance payment shall be payable to the contractor. Mobilization advance payment in exceptional circumstances shall be interest bearing and secured through a Bank Guarantee and shall be limited to a maximum of 5% of contract value. This 'Interest Bearing Recoverable Advance' shall be payable in not less than two installments with any of the installment not exceeding 60% of the total eligible advance".
 - 9.1.2 Clause 2.13.6 in GCC is revised as "The rate of interest applicable for the above advances shall be the Base rate of State Bank of India prevailing at

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the time of disbursement of the advance + 6%, and such rate will remain fixed till the total advance amount is recovered”.

- 9.1.3 Clause 2.13.7 in GCC is revised as “Unadjusted amount of advances paid shall not exceed 5% of the total contract value at any point of time. Recovery of advances shall be made progressively from each Running Bill such that the advance amounts paid along with the interest is fully recovered by the time the contractor’s billing reaches 90% of contract value.”

Sl. No: 10

Clause 2.14.1 on Quantity Variation in General Conditions of Contract (GCC), Volume-IC, Book-II, is revised as under:

- 2.14.1 The quantities given in the contract are tentative and may change to any extent (both in plus side and minus side). The quoted rates for individual items shall remain firm irrespective of any variations in the individual quantities. No compensation becomes payable in case the variation of the final executed contract value is within the limit of Minus (-) 30% of awarded contract value.”

Sl No: 11

PRICE VARIATION COMPENSATION (PVC)

The PRICE VARIATION COMPENSATION (PVC) clause 2.17 published in General Conditions of Contract (Volume I Book-II) is revised as under.

2.17 PRICE VARIATION COMPENSATION

- 2.17.1 In order to take care of variation in cost of execution of work on either side, due to variation in the index of LABOUR, HIGH SPEED DIESEL OIL, WELDING ROD, CEMENT, STEEL, MATERIALS, Price Variation Formula as described herein shall be applicable (only for works executed during extended period, if any, subject to other conditions as described in this section).
- 2.17.2 **85%** component of executed Contract Value shall be considered for PVC calculations and remaining 15% shall be treated as fixed component. The basis for calculation of price variation in each category, their component, Base Index, shall be as under:

2.17.3

Sl. No	CATEGORY	BASE INDEX	PERCENTAGE COMPONENT ('K')		
			CIVIL PACKAGES (See Note A/B/C)	MECHANICAL PACKAGES	Electrical, C&I, Material Management / Handling and other labour
			A	B**	C

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							oriented packages
i)	LABOUR (ALL CATEGORIES)	'MONTHLY ALL-INDIA AVERAGE CONSUMER PRICE INDEX NUMBERS FOR INDUSTRIAL WORKERS' published by Labour Bureau, Ministry of Labour and Employment, Government of India. (Website: labourbureau.nic.in)	40	25	30	65	80
ii)	HIGH SPEED DIESEL OIL	Name of Commodity: HSD Commodity code: 1202000005 (See Note E)	5	3	5	5	5
iii)	WELDING ROD	Name of Commodity: MANUFACTURE OF BASIC METALS Commodity code: 1314000000 (See Note E)				15	
iv)	CEMENT	Name of Commodity: ORDINARY PORTLAND CEMENT Commodity code: 1313050003 (See Note E)		20	30		
v)	STEEL (Structural and Reinforcement Steel)	Name of Commodity: MILD STEEL: LONG PRODUCTS Commodity code: 1314040000 (See Note E)		25			
vi)	ALL OTHER MATERIALS (Other than Cement & Steel)	Name of Commodity: ALL COMMODITIES Commodity code: 1000000000 (See Note E)	40	12	20		

Note: A) Cement & Steel: Free Issue (BHEL Scope)

B) Cement & Steel: In Contractor Scope

C) Cement in Contractor Scope, and Steel is Free Issue (BHEL Scope)

D) For Composite packages (i.e. Civil + Mechanical + Electrical and / or CI or Civil + Mechanical or Mechanical + Electrical and / or CI), the Component ('K') for various categories shall be as per respective packages as above

E) As per the 'MONTHLY WHOLE SALE PRICE INDEX' for the respective Commodity and Type, published by Office of Economic Adviser, Ministry of Commerce and Industry, Government of India. (Website: http://www.eaindustry.nic.in/download_data_0405.asp). Revisions in the index or commodity will be re adjusted accordingly.

2.17.4 **Void**

2.17.5 Payment / recovery due to variation in index shall be determined on the basis of the following notional formula in respect of the identified

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component ('K') viz LABOUR, HIGH SPEED DIESEL OIL, WELDING ROD, CEMENT, STEEL, MATERIALS.

$$P = K \times R \times \frac{(X_N - X_0)}{X_0}$$

Where

P = Amount to be paid/recovered due to variation in the Index for Labour, High Speed Diesel Oil, Welding Rod, Cement, Steel and Materials

K = Percentage component ('K') applicable for Labour, High Speed Diesel Oil, Welding Rod, Cement, Steel and Materials

R = Value of work done for the billing month (Excluding Taxes and Duties if payable extra)

XN = Revised Index for Labour, High Speed Diesel Oil, Welding Rod, Cement, Steel and Materials for the billing month under consideration

Xo = Index for Labour, High Speed Diesel Oil, Welding Rod, Cement, Steel and Materials as on the Base date.

2.17.6 **Base date shall be the calendar month of the schedule completion date (i.e. Actual Start date + Scheduled Contractual Completion period as per Letter of Intent / award and / or work order).**

2.17.7 PVC shall not be payable for the ORC amount, Supplementary / Additional Items, Extra works. However, PVC will be payable for items executed under quantity variation of BOQ items under originally awarded contract.

2.17.8 The contractor shall furnish necessary monthly bulletins in support of the requisite indices from the relevant websites along with his Bills.

2.17.9 The contractor will be required to raise the bills for price variation payments on a monthly basis along with the running bills irrespective of the fact whether any increase/decrease in the index for relevant categories has taken place or not. In case there is delay in publication of bulletins (final figure), the provisional values as published can be considered for payments and arrears shall be paid/recovered on getting the final values.

2.17.10 PVC shall be applicable only, during extended period of contract (if any) after the scheduled completion period and for the portion of work delayed/backlog for the reasons not attributable to the contractor.

However, the total Quantum of Price Variation Amount payable/recoverable shall be regulated as follows:

1. For the portion of shortfall/backlog not attributable to contractor, PVC shall be worked out on the basis of indices applicable for the respective

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month in which work is done. Base index shall be applicable as defined in clause 2.17.5

2. In case of Force Majeure, the PVC shall be regulated as per (a) or (b) below.
 - a. Force Majeure is invoked before “Base Date” / “revised base date” (as explained below) OR immediately after “base date” / “revised base date” in continuation (i.e. during the period when PVC is not applicable):
 - vii. Base date shall be revised: Revised Base date = Previous base date + duration of Force Majeure.
No PVC will be applicable for the work done till revised base date.
 - viii. PVC will be applicable for the work done after “base date”/” revised date” as the case may be (during extended period when delay is not attributable to contractor). PVC shall be worked out on the basis of indices applicable for the respective month in which work is done with base index as on “base date”/ “revised base date” as the case may be.
 - b. Force Majeure is invoked after “base date”/ “revised base date” as the case may be (during extended period when delay is not attributable to contractor).
 2. PVC shall be applicable for the work done after revocation of Force Majeure.
 3. PVC for the work done after revocation of Force Majeure shall be worked out on the basis of indices applicable for the respective month on which work is done excluding the effect of change in indices during total period of Force Majeure(s) invoked after “base date” / “revised base date” as the case may be. Base index shall be taken as on “base date” / “revised base date” as the case may be.

The total amount of PVC shall not exceed 15% of the cumulatively executed contract value. Executed Contract value for this purpose is exclusive of PVC, ORC, Supplementary / Additional items and Extra works except items due to quantity variation

SI No: 12

Clauses 2.21 in GCC regarding Arbitration is amended as below

2.21 ARBITRATION & CONCILIATION

2.21.1 ARBITRATION:

2.21.1.1 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as

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provided in Clause 2.21.2 herein below or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or, in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, commence arbitration in respect of such Dispute by issuance of a notice in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice'). The Notice shall contain the particulars of all claims to be referred to arbitration in sufficient detail and shall also indicate the monetary amount of such claim. The arbitration shall be conducted by a sole arbitrator to be appointed by the Head of the BHEL Power Sector Region issuing the Contract within 60 days of receipt of the complete Notice. The language of arbitration shall be English.

The Arbitrator shall pass a reasoned award.

Subject as aforesaid, the provisions of Arbitration and Conciliation Act 1996 (India) or statutory modifications or re-enactments thereof and the rules made thereunder as in force from time to time shall apply to the arbitration proceedings under this clause. The seat of arbitration shall be **Chennai** (the place from where the contract is Issued). The Contract shall be governed by and be construed as per provisions of the laws of India. Subject to this provision 2.21.1.1 regarding ARBITRATION, the principal civil court exercising ordinary civil jurisdiction over the area where the seat of arbitration is located shall have exclusive jurisdiction over any DISPUTE to the exclusion of any other court.

2.21.1.2 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 commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as

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mentioned in DPE OM No. 4(1)/2013-DPE(GM)/FTS-1835 dated 22-05-2018 as amended from time to time.

2.21.1.3 The cost of arbitration shall initially be borne equally by the Parties subject to the final allocation thereof as per the award/order passed by the Arbitrator.

2.21.1.4 Notwithstanding the existence of any dispute or differences and/or reference for the arbitration, the Contractor shall proceed with and continue without hindrance the performance of its obligations under this Contract with due diligence and expedition in a professional manner unless the dispute inter-alia relates to cancellation, termination or short-closure of the Contract by BHEL.

2.21.2 CONCILIATION:

If at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the agreement, contract), which the Parties are unable to settle mutually, arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee (IEC) to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.

Notes:

1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.

The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in Procedure 2.3 (enclosed in Vol 1A Part II Chapter 8). The Procedure 2.3 together with its Formats will be treated as if the same is part and parcel hereof and shall be as effectual as if set out herein in this GCC.

The Contractor hereby agrees that BHEL may make any amendments or modifications to the provisions stipulated in the Procedure 2.3 (enclosed in Vol 1A Part II Chapter 8) from time to time and confirms that it shall be bound

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by such amended or modified provisions of the Procedure 2.3 with effect from the date as intimated by BHEL to it.

2.21.3 No Interest payable to Contractor

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.

SI No: 13: Reverse Auction

The chapter Reverse auction procedure published in 'Forms and Procedures' of Volume I Book-II stands deleted. Reverse Auction Guidelines available in the website <http://www.bhel.com> shall be applicable.

SI No: 14

Existing format on Monthly Performance Evaluation of Contractor, as available in Form No F-14 of Volume ID Forms and procedure stands Deleted. Form No.- F-14 (Rev 01) is enclosed.

SI No: 15

Existing format on Monthly Performance Evaluation of Contractor, as available in Form No F-15 of Volume ID Forms and procedure stands Deleted. Form No.- F-15 (Rev 02) is enclosed.

SI No:16

Clause 2.22 in GCC regarding Retention Amount is revised as under:

2.22 Performance Security Deposit

2.22.1 After award of work, before commencement of work at site Vendor shall submit 5% of the contract value towards Performance Security Deposit, in the form of (a) or (b) below.

(a) CASH (DD/ Online payment), 5% of the contract Value towards Performance Security Deposit, before commencing the contract

(or)

(b) Recovery 5% from Each Running Bill towards Performance security deposit. (Note: Subcontractor has to choose either Option (a) or (b) before issue of Detailed LOI).

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- (c) However, Performance Security Deposit on part of PVC will be recovered at the rate of 5% from every running bill towards performance security deposit.

2.22.2 Refund of Performance Security Deposit:

- a) 50% of Performance Security Deposit shall be released along with the final bill.
- b) Balance 50% will be released after completion of Performance Guarantee Period (i.e., after expiry of Guarantee period), provided all the defects noticed during the guarantee period have been rectified to the satisfaction of BHEL Site Engineer/ BHEL Construction Manager, and after deducting all expenses/ other amounts due to BHEL under the contract/ other contracts entered into by BHEL with them. This portion of Performance Security Deposit, amount can be released on commencement of the Guarantee Period, on submission of equivalent Bank Guarantee.

SI No: 17

Existing format for Integrity Pact, as available in Volume ID Forms and procedure stands Deleted. Revised Format is enclosed.

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VOLUME-IA PART – II

CHAPTER 2 to 10

Chapter 2 to 10 in next 655 pages as below

Chapter number	Description	No. of pages
2	Technical Specifications	539
3	Plot Plan, Layout Outside Plant Boundary Drawings	02
4	“HSE Plan for Site Operations by Subcontractor” (Document No. HSEP: 14 Rev 00)	72
5	Proforma for Bank Guarantee for EMD	02
6	Format for Form no.: F-14 (Rev 01); Monthly Plan & Review with Contractor	05
7	Format for Form no.: F-15 (Rev 02); Monthly Performance-Evaluation of Contractor	06
8	Procedure for conduct of conciliation proceedings	11
9	Hire charges	13
10	Integrity Pact	05