

# Tender specification

Sl no	Tender specification number	Unit number & project
1	BHE/PW/PUR/MADT1-STR U-4/1340	Unit 4 of 2x660 MW bunker structure

## Scope of work:-

**A) Supply Job:-** Detailed drawing preparation and getting approval from BHEL PEM / NTPC, supply of finished product of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor galleries and its supporting trestle of bunker structures etc. at site of Unit # 4 of 2X660 MW NTPC MOUDA STPP STAGE II.

**B) E & C Job:-** Unloading, receipt & handling of finished material; pre assembly, erection, alignment, bolting/ welding/ fastening, grouting, testing, final painting and handing over of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor galleries and its supporting trestle of bunker structures etc. at site of Unit # 4 of 2X660 MW NTPC MOUDA STPP STAGE II.

At

**NATIONAL THERMAL POWER CORPORATION LIMITED (NTPC),**

**MOUDA**

**District: Nagpur**

**MAHARASHTRA**

## Technical bid - volume- I

### Consisting of:

- Notice Inviting Tender,
- Volume-IA : Technical Conditions of Contract-,
- Volume-IB : Special Conditions of Contract,
- Volume-IC : General Conditions of Contract
- Volume-ID : Forms & Procedures
- Volume II B: technical Specification



## Tender Specification Issue Details

Sl no	Tender specification number	Unit number & project
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At

**NATIONAL THERMAL POWER CORPORATION LIMITED (NTPC),**

**MOUDA**

**District: Nagpur**

**MAHARASHTRA**

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR                      Refer Notice Inviting Tender  
TENDER SUBMISSION                      .

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING VOLUME-I AND VOLUME- II ARE ISSUED TO:

M/s. ....

.....

PLEASE NOTE:  
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)

Place: Nagpur

Date :

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1340

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



**BHEL PSWR  
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/MADT1-STR U-4/1340

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Ref: BHE/PW/PUR/MADT1-STR U-4/1340

Date: 18/10/2014

**NOTICE INVITING TENDER (NIT)**  
**NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES  
OR  
PURCHASE TENDERS FROM THIS OFFICE ALSO**

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To

Dear Sir/Madam

**Sub : NOTICE INVITING TENDER**

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-I) 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	<b>TENDER NUMBER</b>	<b>BHE/PW/PUR/MADT1-STR U-4/1340</b>
ii	<b>Broad Scope of job</b>	<b>A) Supply Job:-</b> Detailed drawing preparation and getting approval from BHEL PEM / NTPC, supply of finished product of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor galleries and its supporting trestle of bunker structures etc. at site of Unit # 4 of 2X660 MW NTPC MOUDA STPP STAGE II.  <b>B) E &amp; C Job:-</b> Unloading, receipt & handling of finished material; pre assembly, erection, alignment, bolting/ welding/ fastening, grouting, testing, final painting and handing over of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor galleries and its supporting trestle of bunker structures etc. at site of Unit # 4 of 2X660 MW NTPC MOUDA STPP STAGE II.
iii	<b>DETAILS OF TENDER DOCUMENT</b>	
a	Volume-IA	<i>Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i> <i>Applicable</i>
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> <i>Applicable</i>
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> <i>Applicable</i>
d	Volume-ID	<i>Forms and Procedures</i>
e	Volume-II	<i>Price Schedule (Absolute value).</i> <i>Applicable</i>

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iv	Issue of Tender Documents	<p>1. <u>Sale from BHEL PS Regional office at :</u> <b>Start : 18/10/2014 ,</b> <b>Closes: 01/11/2014 , Time : 16.00 Hrs</b></p> <p>2. From BHEL website (<a href="http://www.bhel.com">www.bhel.com</a>) Tender documents will be available for downloading from website till due date of submission</p>	Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	<p><b>Date : 03/11/2014, Time 15.00 Hrs</b> <b>Place : <u>BHEL PS Regional office at :Nagpur</u></b></p> <p>Tenders being submitted through representative shall be submitted at dispatch section of of PSWR HQ Office after making entry/registration at the reception. For any assistance on the matter kindly contact following officials:</p> <ul style="list-style-type: none"> <li>• Pratiksh Gee Varghese/Sr Engineer(Purchase</li> <li>• Shivkesh Meena / Engineer (Purchase)</li> </ul>	Applicable
vi	OPENING OF TENDER	<p><b>1 hours after the latest due date and time of Offer submission</b></p> <p>Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date &amp; time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may depute representative to witness the opening of tender</p>	Applicable
vii	EMD AMOUNT	Rs 2,00,000/- (Rupees Two Lakhs Only)	Applicable
viii	COST OF TENDER	Rs 2000/-.	Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	Five days before the due date of offer submission. Along with soft version also, addressing to undersigned & to others as per contact address given below	Applicable
x	SCHEDULE OF Pre Bid Discussion (PBD)		<b>Not Applicable.</b>
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	Shri V.V.R. Sastry, Ex-CMD/ BEL 957, 9th Main 3 Stage, 3 Block Basaveswaranagar Bangalore- 560079 Email: <a href="mailto:sastry@gmail.com">sastry@gmail.com</a>	Applicable
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 ( <a href="http://www.bhel.com">www.bhel.com</a> -->Tender Notifications →View Corrigendums) <b>and not in the newspapers</b> . Bidders to keep themselves updated with all such information	

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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 Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Nagpur issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Nagpur, Sundays and second/ last Saturdays
- 4.0 Unless specifically stated otherwise, bidder shall deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Nagpur. For other details and for 'One Time EMD' please refer General Conditions of Contract.
- 5.0 **Procedure for Submission of Tenders:** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:
- PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD/COST of TENDER)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)
  - PART-II (Price Bid) – in sealed and superscribed envelope (ENVELOPE-III)
  - One set of tender documents shall be retained by the bidder for their reference
- 6.0 The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below. **(All pages to be signed and stamped)**

Sl no	Description	Remarks
	<b>Part-I A</b>	
	<b>ENVELOPE – I superscribed as :</b> PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:-</b>	
i.	Covering letter/Offer forwarding letter of Tenderer.	
ii.	Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.  <b>Note:</b> a. 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 placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	

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iii.	Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.  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 ph no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
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	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

<b>PART-I B</b>		
	<p><b>ENVELOPE – II superscribed as:</b> PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p><b>CONTAINING THE FOLLOWING:-</b></p>	
i.	<p>1. Earnest Money Deposit (EMD) in the form as indicated in this Tender <b>OR</b> Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender</p> <p>2. Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)</p>	

<b>PART-II</b>		
	<b>PRICE BID</b> consisting of the following shall be enclosed	
	<p><b>ENVELOPE-III</b> superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p><b>CONTAINING THE FOLLOWING</b></p>	
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I	
ii	Volume II – PRICE BID ( Duly Filled in Schedule of Rates – rate/price to be entered in words as well as figures)	

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<b>OUTER COVER</b>		
	<b>ENVELOPE-IV (MAIN ENVELOPE / OUTER ENVELOPE)</b> superscribed as: TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:</b>	
i	<ul style="list-style-type: none"> <li>○ Envelopes I</li> <li>○ Envelopes II</li> <li>○ Envelopes III</li> </ul>	

**SPECIAL NOTE :** All documents/ annexures submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing documents.

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:**  
**Bidders 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 'Load' is the sum of the unit wise identified packages (refer Table-1) for contracts with BHEL Regions. The cut off month for reckoning 'Load' shall be the month, two (2) months preceding the month corresponding to the 'latest date of bid submission', in the following manner:

(Note: For example if latest bid submission is in Aug 2011, then the 'load' shall be calculated upto and inclusive of June 2011)

i). **Total number of Packages**  
 Total number of Packages in hand = P  
 Where

- 'P' is the sum of all unit wise identified packages 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 the 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 the cut off month. The cut off

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month for reckoning 'Period of Assessment' shall be the month two (2) months preceding the month corresponding to the 'latest date of bid submission', in the following manner:

**(Note:** For example if 'latest date of bid submission' is in Aug 2011, then the 'performance' shall be assessed for a 6 month period upto and inclusive of June 2011, 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) **SIMILAR** to the packages covered under the tendered scope, excepting packages not commenced. Total number of similar packages for all Regions =  $P_T$  (ie  $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$ )
- 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 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 ( $S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5}, \dots, S_{1-N}$ ) for similar package  $P_1$ , for the 'period of assessment' ' $T_1$ ' (i.e  $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots + S_{1-N}$ ). 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**

$$= \frac{\text{Aggregate of Performance scores for all similar packages in all the Regions}}{\text{Aggregate of months for each of the similar package for which performance should have been evaluated in all the Regions}}$$

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

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

SI	Item Description	Details for all Regions	Total
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no		(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
(i)	(ii)								
1	Similar Packages for all Regions → (under execution/ executed during period of assessment)	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>	P <sub>5</sub>	...	P <sub>N</sub>	Total No of similar packages for all Regions = P <sub>T</sub> 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 <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	T <sub>4</sub>	T <sub>5</sub>	...	T <sub>N</sub>	Sum (Σ) of columns (iii) to (ix)  = T <sub>T</sub>
3	Monthly performance scores for the corresponding period (as in Row 2)	S <sub>1-1,</sub> S <sub>1-2,</sub> S <sub>1-3,</sub> S <sub>1-4,</sub> ... S <sub>1-T1</sub>	S <sub>2-1,</sub> S <sub>2-2,</sub> S <sub>2-3,</sub> S <sub>2-4,</sub> ... S <sub>2-T2</sub>	S <sub>3-1,</sub> S <sub>3-2,</sub> S <sub>3-3,</sub> S <sub>3-4,</sub> ... S <sub>3-T3</sub>	S <sub>4-1,</sub> S <sub>4-2,</sub> S <sub>4-3,</sub> S <sub>4-4,</sub> ... S <sub>4-T4</sub>	S <sub>5-1,</sub> S <sub>5-2,</sub> S <sub>5-3,</sub> S <sub>5-4,</sub> ... S <sub>5-T5</sub>	.. ... ... ... ... ...	S <sub>N-1,</sub> S <sub>N-2,</sub> S <sub>N-3,</sub> S <sub>N-4,</sub> ... S <sub>N-TN</sub>	-----
4	Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	S <sub>5</sub>	...	S <sub>N</sub>	Sum (Σ) of columns (iii) to (ix)  = S <sub>T</sub>

ii) Calculation of Overall 'Performance Rating' (R<sub>BHEL</sub>) in case '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<sub>BHEL</sub>' shall be calculated subject to availability of 'performance scores' for at least.6 'package months' in the order of precedence below:

- a) 'Period of Assessment.
- b) 12 months preceding the cut-off month
- c) 24 months preceding the cut-off month
- d) 36 months preceding the cut-off month

In case, R<sub>BHEL</sub> 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'

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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	$\leq 60$	NA
2	$> 60$ and $\leq 65$	0.4
3	$> 65$ and $\leq 70$	0.35
4	$> 70$ and $\leq 75$	0.25
5	$> 75$ and $< 80$	0.2
6	$\geq 80$	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:

- i. 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
- ii. For  $R_{BHEL} = 60$ ,  $P_{Max} = '1'$
- iii. 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 9.I)

**IV. Explanatory note:**

- a) Similar package means Boiler or ESP or Piping or Turbine or Civil or Structure or Electrical or CI, 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, CI, 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 (ie Boiler, ESP and Power Cycle Piping) and finally the Bidder’s capacity to execute the tendered scope is assessed in line with III above
- b) Identified Packages (Unit wise)

**Table-1**

	Civil	Electrical & CI	Mechanical
	i). Enabling works ii). Pile and Pile Caps iii). Civil Works including foundations iv). Structural Steel Fabrication & Erection v). Chimney	i). Electrical ii). CI iii). Others (Elec & CI)	i). Boiler & Aux (All types including CW Piping if applicable) ii). Power Cycle Piping/Critical Piping iii). LP Piping iv). ESP v). Steam Turbine Generator set & Aux

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	vi). Cooling Tower vii). Others (Civil)		vi). Gas Turbine Generator set & Aux vii). Hydro Turbine Generator set & Aux viii). Turbo Blower (including Steam Turbine) ix). Material Handling x). Material Management xi). Material Handling & Material Management xii). Others (Mechanical)
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c) Bidders who have not been evaluated for at least six package months in the last 36 months in the online BHEL system for contractor performance evaluation in BHEL PS Regions, wef July'2010 shall be considered "NEW VENDOR".

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

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 'Capacity Evaluation of Bidders'.

d) In the unlikely event of all bidders shortlisted against Technical and Financial Qualification criteria not meeting the criteria on 'Assessment of Capacity of Bidders' detailed above, OR leads to a single tender response on applying the criteria of 'Assessment of Capacity of Bidders' or due to non-approval by Customer, then BHEL at its discretion reserves the right to consider the further processing of the Tender based on the **Overall Performance Rating 'R<sub>BHEL</sub>'** only, starting from the upper band.

e) 'Under execution' shall mean works in progress as per the following:

- i. up to Boiler Steam Blowing in case of Steam Generator and Auxiliaries
- ii. upto Synchronisation in case of all other works excepting sl no (i) and (iii)
- iii. Upto execution of at least 90% of anticipated contract value in case of Civil & Structures (unit wise), Enabling works and upto 90% of material unloading (in tonnage) as per the original contract in case of MM Package.

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

f) Performance evaluation in CL 9 above is applicable to Prime bidder and consortium partner (or Technical tie up partner) for their respective scope of work

- 10.0 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.
- 11.0 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.
- 12.0 BHEL may decide holding of 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.
- 13.0 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, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0 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.**
- 16.0 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-I (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.
- 17.0 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 authorised 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.
- 18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.
- 19.0 BHEL reserves the right to decide the successful bidder on the basis of Reverse Auction process. In such case all qualified bidders will be intimated regarding procedure/ modality for Reverse Auction process prior to Reverse Auction and price will be decided as per the rules for Reverse Auction. .

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However, if reverse auction process is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the sealed 'PRICE BIDS' will be opened for deciding the successful bidder. BHEL's decision in this regard will be final and binding on bidder.

- 20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 21.0 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.
- 22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 23.0 Consortium Bidding (or Technical Tie up) shall be allowed only if specified in Pre Qualifying Requirement (PQR) criteria, and in such a case the following shall be complied with:
  - 23.1 Prime Bidder and Consortium Partner or partners are required to enter into a consortium agreement with a validity period of six months initially. In case the consortium is awarded the contract, then the Consortium Agreement between the Prime Bidder and Consortium Partner or partners shall be extended till contractual completion period including extension periods if any applicable.
  - 23.2 'Stand alone' bidder cannot become a **'Prime Bidder' or a 'Consortium bidder' or 'Technical Tie up bidder' in a consortium (or Technical Tie up) bidding.** Prime bidder shall neither be a consortium partner to other prime bidder nor take any other consortium partners. 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. Also ~~**A consortium partner cannot form consortium with more than one prime bidder and vice-versa.**~~
  - 23.3 Number of partners for a consortium Bidding (or Technical Tie up) shall be as specified in the PQR
  - 23.4 Prime Bidder shall be as specified in the Pre Qualification Requirement, ~~else the bidder who has the major share of work~~
  - 23.5 In order to be qualified for the tender, Prime Bidder and Consortium partner or partners shall satisfy (i) the Technical 'Pre Qualifying Requirements' specified for the respective package, (ii) "Assessment of Capacity of Bidder" as specified in clause 9.0
  - ~~23.6 Prime Bidder shall comply with additional 'Technical' criteria of PQR as defined in 'Explanatory Notes for the PQR'~~
  - 23.7 Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified
  - 23.8 In case customer approval is required, then Prime Bidder and Consortium Partner or partners shall have to be individually approved by Customer for being considered for the tender.
  - 23.9 Prime Bidder shall be responsible for the overall execution of the contract
  - 23.10 In case of award of job, Performance shall be evaluated for Prime Bidder and Consortium Partner or partners for their respective scope of work(s) as per prescribed formats

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- 23.11 In case the Consortium partner or partners back out, their SDs shall be encashed by BHEL. In such a case, other consortium partner or partners meeting the PQR have to be engaged by the Prime Bidder, and if not, the respective work will be withdrawn and executed on risk and cost basis of the Prime Bidder. The new consortium partner or partners shall submit fresh SDs as applicable.
- 23.12 In case the prime Bidder withdraws, the whole contract shall be considered cancelled and short closed.
- 23.13 After execution of work, the work experience shall be assigned to the Prime Bidder and the consortium partner or partners for their respective scope of work. After successful execution of two similar works with the same consortium partner or partners under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a 'stand alone' bidder for similar works, subject to certification from BHEL about the active involvement of the Prime Bidder for satisfactory execution of the works.
- 23.14 The consortium partner shall submit SD equivalent to 2% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value. In case there are two consortium partners, then each partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value.
- 23.15 In case of a Technical Tie up, all the clauses applicable for the Consortium partner shall be applicable for the Technical Tie up partner also
- 24.0 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.
- 25.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0 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
  - f. General Conditions of Contract (GCC) —Volume-1C
  - g. Forms and Procedures —Volume-1D

It may please be noted that guidelines/rules in respect of suspension of business dealings', 'Vendor evaluation format', 'Quality, Safety & HSE guidelines', etc may undergo change from time to time and the latest one shall be followed\

for BHARAT HEAVY ELECTRICALS LTD

AGM Pur

**Enclosure**

1. Annexure-1: Pre Qualifying criteria.
2. Annexure-2: Check List .
3. Annexure-3: INTEGRITY PACT
4. Annexure-4: Important Information .
5. Other Tender documents as per this NIT.

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**ANNEXURE - 1**

**PRE QUALIFYING CRITERIA**

JOB	<p><b>A) Supply Job:-</b> Detailed drawing preparation and getting approval from BHEL PEM / NTPC, supply of finished product of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor galleries and its supporting trestle of bunker structures etc. at site of Unit # 4 of 2X660 MW NTPC MOUDA STPP STAGE II.</p> <p><b>B) E &amp; C Job:-</b> Unloading, receipt &amp; handling of finished material; pre assembly, erection, alignment, bolting/ welding/ fastening, grouting, testing, final painting and handing over of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor galleries and its supporting trestle of bunker structures etc. at site of Unit # 4 of 2X660 MW NTPC MOUDA STPP STAGE II</p>
TENDER NO	<b>BHE/PW/PUR/MADT2-STR U # 4 / 1340 (For Bunker U # 4)</b>

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. <b>Bidder must fill up this column as per applicability</b>
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	<p><b><u>Technical</u></b></p> <p><b><u>Bidder must have achieved B.1 (PQR for fabrication &amp; Supply Portion) AND B.2 (PQR for E&amp;C portion)</u></b></p> <p><b>B.1:</b> Bidder must have achieved B.1.a or B.1.b</p> <p><b>B.1.a</b> Bidder Must be possessing fabrication work shop/factory “capable of delivering atleast 500 MT fabricated Boiler/Bunker Structural materials per month.</p> <p>Towards above, bidder must submit the following:</p> <ul style="list-style-type: none"> <li>• Valid Excise Registration Certificate.</li> <li>• Work orders and proof of delivery/supply of fabricated structural material (including boiler/bunker/power house/pipe racks structural material) to a tune of atleast 500 MT Per Month during a period of 3 consecutive months in the last two years.</li> </ul> <p style="text-align: center;">OR</p> <p>Work orders and proof of delivery/supply of fabricated structure material (including boiler/bunker/power house/pipe racks structural material) to a tune of atleast</p>	APPLICABLE	

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	<p>4000 MT in a year (in any consecutive period of 12 months) during last 3 years. OR</p> <p><b>B.1.b</b> Bidder must have valid (valid as on date of evaluation or valid in last three months as on last date of offer submission) Rate Contract/Registration with BHEL Trichy unit for Supply of General Fabrication/Boiler Columns/Auto Weld Beams &amp; Boxes for Unit rating 500 MW or higher.</p> <p><b>B.2</b> Bidder must have executed Erection &amp; Commissioning (E&amp;C) of Complete Bunker &amp; Bunker Structure of one unit of 400 MW or higher rating OR Bidder must have executed Erection &amp; Commissioning (E&amp;C) of Bunkers &amp; Bunker Structures of 6000 MT or above against a single order OR Bidder must have executed E&amp;C one job of PF Boiler of rating 400 MW or higher.</p> <p><b>Note:</b> In case the bidder satisfy only any one of the either of the PQR (i.e B1 OR B2) on their own, then they can form <b>consortium</b> with any other party satisfying the other PQR and submit the tender. This will be termed as consortium bidding. In case of consortium bidding following shall be applicable:</p> <ul style="list-style-type: none"> <li>• Either of the bidder can be the Prime bidder. Same shall be declared upfront in the bid documents</li> <li>• Prime bidder shall be responsible for satisfying the financial PQR C</li> <li>• Prime bidder shall submit the entire tender along with the credentials, all statutory documents and the documents in support of PQR condition of the Consortium Partner.</li> <li>• All conditions as in Clause 23 of NIT and Explanatory note of PQR in SI No XVI shall be applicable</li> </ul>		
C-1	<p><b><u>Financial TURNOVER</u></b> Bidders/prime bidders must have achieved an average annual financial turnover (Audited) of <b>Rs 2100 Lakhs</b> or more over last three Financial Years (FY) i.e. 2011-12 2012-13 &amp; 2013-14</p>	APPLICABLE	
C-2	<p><b><u>NETWORTH</u></b> (only in case of Companies) Net worth of the Prime Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive</p>	APPLICABLE	
C-3	<p><b><u>PROFIT</u></b> Bidder must have earned cash 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.</p>	APPLICABLE	

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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)  <b>Note:</b> 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 <b>Note:</b> Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E		BY BHEL
F	Consortium criteria (if applicable)	APPLICABLE	
<p><b><u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u></b></p> <ul style="list-style-type: none"> <li>i. 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</li> <li>ii. 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.</li> <li>iii. 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)</li> <li>iv. C-3:- PROFIT : shall be NET profit (PAT + Non cash expenditure viz depreciation) earned during any one of the three financial years as in C-1 above</li> <li>v. <del>‘Additional’ Criteria in respect of ‘Technical’ criteria of PQR (as in ‘B’ above) for Civil, Electrical, CI, unless otherwise specified :-</del> <ul style="list-style-type: none"> <li>1. <del>Bidder should have executed similar work of any one of the following:</del> <ul style="list-style-type: none"> <li>a. <del>One (1) work of value not less than Rs XXX</del></li> <li><del>_____OR</del></li> <li>b. <del>Two (2) works of not less than Rs YYY</del></li> <li><del>_____OR</del></li> <li>c. <del>Three (3) works of not less than Rs ZZZ</del></li> </ul> </li> <li>(Value XXX, YYY, ZZZ shall be as indicated by BHEL</li> <li>2. <del>‘Similar’ work for criteria 5 above means</del> <ul style="list-style-type: none"> <li>a. <del>Civil or Structures or Civil &amp; Structures or Chimney respectively as applicable to the tendered scope in respect of ‘CIVIL’ Works</del></li> <li>b. <del>Electrical works in respect of ‘ELECTRICAL’</del></li> <li>c. <del>CI works in respect of ‘CI’ Works</del></li> <li>d. <del>Material Handling and/or Management works in respect of ‘MM’ works</del></li> </ul> </li> </ul> </li> <li>vi. Time period for achievement of the ‘Technical’ criteria of PQR (as in ‘B’ above) will be the last 7 years ending on the ‘latest date’ of Bid submission unless otherwise specified</li> <li>vii. ‘EXECUTED’ means the Vendor should have achieved the criteria specified in the Technical criteria of PQR (as in ‘B’ above) even if the Contract has not been completed or closed</li> <li>viii. Unless otherwise specified, for the purpose of ‘Technical’ criteria of PQR ( as in ‘B’ above), the word ‘EXECUTED’ means: <ul style="list-style-type: none"> <li>1. <del>“BOILER LIGHT UP” in respect of Boiler &amp; Aux and ESP</del></li> <li>2. <del>“SYNCHRONISATION” in respect of STG/GTG and ‘SPINNING’ in case of HTG</del></li> <li>3. <del>“STEAM BLOWING COMPLETION” in respect of at least Main Steam Line of Power Cycle Piping</del></li> <li>4. <del>“HYDRAULIC TEST” of the system in respect of Structures, Pressure parts/IBR Piping</del></li> <li>5. <del>“CHARGING” in respect of power Transformers, Bus ducts, HT/LT switchgears</del></li> </ul> </li> </ul>			

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	<p>6. <del>“Completion of RCC Shell and liner (steel or brick as per tendered scope) up to the HEIGHT specified using slip form” in case of RCC Chimney.</del></p> <p>7. <del>Achievement of physical Quantities as per respective PQRs in respect of Civil &amp; Structures and Piling Works</del></p> <p>8. <del>“Readiness for coal Filling” in respect of Bunker Structure Work.</del></p> <p>ix. Boiler means HRSG or WHRB or any other types of Steam Generator</p> <p>x. <del>Critical/Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass, LP Bypass lines</del></p> <p>xi. 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>xii. <del>In case the experience/POAWO certificate enclosed by bidders do not have separate break up prices for the E&amp;C portion of Electrical and CI Works, (i.e. the certificates enclosed are for composite order for supply and erection of Electrical &amp; CI and other works if any), then value of Erection and Commissioning for the Electrical &amp; CI portion shall be considered as 15% of the supply &amp; erection of Electrical &amp; CI, unless otherwise specifically indicated in the PQR.</del></p> <p>xiii. <del>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.</del></p> <p>xiv. <del>In case the tendered scope is not a Pulverised Fuel Boiler, experience of Oil/Gas Fired Boilers also can be considered unless otherwise specifically indicated in the PQR</del></p> <p>xv. The value of work (Experience submitted against PQR B) shall be updated as per the PVC indices for “All India Avg. Consumer Price Index for Industrial Workers” with base month as date of execution (completion of contract/work) and indexed upto two months prior to bid opening month.</p> <p><b>xvi. <u>Explanatory Notes for PQR ‘B’</u></b></p> <p>Consortium Bidding is permitted in this tender. Clause No 23.0 of NIT shall hence be applicable. Following may kindly be noted in this regard:</p> <p>b. Provisions/Eligibility of Consortium is detailed in ‘Annexure I of NIT ‘Pre Qualifying Requirement’ (PQR B)</p> <p>c. Prime bidder and Tie-up Partner shall meet their respective technical Pre qualifying Criteria.</p> <p>d. Prime bidder shall meet all other Pre-Qualifying Criteria of the Tender</p> <p>e. Number of partners including Prime Bidder shall not be more than 2.</p> <p>f. Prime Bidder/Leader of Consortium shall be responsible for entire scope of work and shall be the single contact window for BHEL. However Prime Bidder and the consortium partner shall be individually and severally responsible for completion of work as per schedule..</p> <p>g. Prime Bidder/Leader of the consortium shall submit tender to BHEL along with the credentials and other statutory documents of the consortium partner in support of PQR.</p>
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BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

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**ANNEXURE - 2**

**CHECK LIST**

**NOTE:- Tenderers are required to fill in the following details and no column should be left blank**

1	Name and Address of the Tenderer		
2	Details about type of the Firm/Company		
3.a	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
3.b	Details of alternate Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4	EMD DETAILS	DD No:                      Date : Bank :                      Amount: <u>Please tick ( √ ) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
5	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
		APPLICABILITY(B Y BHEL)	ENCLOSED BY BIDDER
6	Whether the format for compliance with <b>PRE QUALIFICATION CRITERIA</b> (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
7	Audited profit and Loss Account for the last three years	Applicable/ <del>Not Applicable</del>	YES/NO
8	Copy of PAN Card	Applicable/ <del>Not Applicable</del>	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable/ <del>Not Applicable</del>	YES/NO
10	Integrity Pact	Applicable/ <del>Not Applicable</del>	YES/NO
11	Declaration by Authorised Signatory	Applicable/ <del>Not Applicable</del>	YES/NO
12	No Deviation Certificate	Applicable/ <del>Not Applicable</del>	YES/NO

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13	Declaration confirming knowledge about Site Conditions	Applicable/ <del>Not Applicable</del>	YES/NO
14	Declaration for relation in BHEL	Applicable/ <del>Not Applicable</del>	YES/NO
15	Non Disclosure Certificate	Applicable/ <del>Not Applicable</del>	YES/NO
16	Bank Account Details for E-Payment	Applicable/ <del>Not Applicable</del>	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Applicable/ <del>Not Applicable</del>	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	Applicable/ <del>Not Applicable</del>	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement . Also the Power of Attorney of the signatories executing the Consortium Agreement	Applicable/ <del>Not Applicable</del>	YES/NO
20	Analysis of Unit rates	Applicable/ <del>Not Applicable</del>	YES/NO

NOTE : STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED **ABOVE APPLICABLE DOCUMENTS** ARE LIABLE TO BE SUMMARILY REJECTED.

**DATE :  
SIGNATORY**

**AUTHORIZED  
(With Name, Designation and Company seal)**

**Annexure-3**

**INTEGRITY PACT**

**Between**

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

**And**

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

**Preamble**

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

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

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

**Section 1 - Commitments of the Principal**

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-

1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a

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promise for or accept, for itself or third person, any material or immaterial benefit which the person is not legally entitled to.

1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.

1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

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

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

2.1.1 the Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

2.1.2 The bidder(s)/ Contractors(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans,

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technical proposals and business details, including information contained or transmitted electronically.

2.1.4 The Bidders (s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

**Section 3 – Disqualification from tender process and execution from future contracts**

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

**Section 4 – Compensation for Damages**

4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.

4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

**Section 5 – Previous Transgression**

1.1. The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.

1.2. If the Bidder makes incorrect statement on his subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

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

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

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

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

**Section – 8 Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractors(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sib-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meeting could have an

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impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC/PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.10 The word 'Monitor' would include both singular and plural.

**Section 9 – Pact Duration**

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

**Section 10 – Other Provisions**

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/MADT1-STR U-4/1340**

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

\_\_\_\_\_  
For & On Behalf of the Principal  
(Office Seal)

\_\_\_\_\_  
For & On Behalf of the Bidder/ Contractor  
(Office Seal)

## IMPORTANT INFORMATION

1. The offers of the bidders who are on the banned list 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 ( [www.bhel.com](http://www.bhel.com) ---> Tender Notification -> List of Banned Firms )
2. All Statutory Requirements as applicable for this project shall be complied with.
3. Please take note of following Revised Tender Clauses:
  - i. Notice Inviting Tender: SI No 9
  - ii. General conditions of Contract: Clause No 1.15.13 (New), Clause No 2.8.3, 2.8.4 and 2.8.5
4. Following Notes are added to Form F- 15 of Volume I D 'Forms & procedures'
  - i. It is only indicative and shall be as per the online format issued by BHEL time to time.
  - ii. No request will be entertained after specified date of the current month w.r.t the changes requested in the scores of immediate previous month.
5. Consortium Bidding is permitted in this tender. Clause No 23.0 of NIT shall hence be applicable. Following may kindly be noted in this regard:
  - i. Provisions/Eligibility of Consortium is detailed in 'Annexure I of NIT 'Pre Qualifying Requirement' (PQR B). Also refer Explanatory Notes in SI No XVI of PQR.
  - ii. Prime Bidder/Leader of the consortium shall submit tender to BHEL along with the credentials and other statutory documents of the consortium partner in support of PQR.
  - iii. Prime Bidder/Leader of Consortium shall be responsible for entire scope of work and shall be the single contact window for BHEL. However Prime Bidder and the consortium partner shall be individually and severally responsible for completion of work as per schedule.
6. Ordering Philosophy: Work order for 'Fabrication & Supply Portion' and 'E&C Portion' of the work shall be released to the successful bidder/'consortium of bidders' separately.
7. Bidder/'Consortium of bidders' who have been awarded the job of Unit # 3 Bunker & Bunker Structure (Supply and Erection) shall not be considered for subject tender

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**8. PRICE EVALUATION**

L-1, L-2 etc status shall be evaluated on the Final Total Price i.e Summation of Price for E&C Portion and 'Fabrication & Supply Portion' including all taxes and freight as given in price bid

**9. PRICE VARIATION CLAUSE (Applicable Only for E&C portion of Work. Please Note that PVC shall not be applicable for 'Fabrication & Supply' Portion of work)**

**Revision in Price Variation Compensation Clause no. 2.17 of Vol I C GCC:**

**Clause No. 2.17.9 of Vol IC GCC is revised as below:-**

PVC shall be applicable only during the extended period of contract (if any) after the schedule completion date for the portion of work delayed / backlog for the reasons not attributable to Contractor. However total quantum of Price Variation amount payable/recoverable shall be regulated as follows:

- i. For the portion of backlog attributable to the contractor and for the portion of backlog due to force majeure condition during contract period, PVC shall not be paid.
- ii. For the period of force Majeure during extended contract period, PVC will be as per the indices applicable at the beginning of the force majeure period.
- iii. void
- iv. The total amount of PVC shall not exceed 20% of the cumulatively executed contract value during the extended contract period. Executed contract value for this purpose is exclusive of PVC, ORC, Supplementary/Additional Items and Extra works.

**Clause No. 2.17.5 of is modified as below:-**

Base date shall be the calendar month of the (schedule completion date of the contract + Period extended for the reasons due to Force Majeure Condition). Schedule Completion date shall be the actual start date plus contract period as defined in Chapter VI 'Vol IA TCC'

**10. OVER RUN COMPENSATION (Applicable Only for E&C portion of Work. Please Note that ORC shall not be applicable for 'Fabrication & Supply' Portion of work)**

**Modification in Price Variation Compensation Clause no. 2.12 of Vol I C GCC:**

**Clause No. 2.12 of Vol IC GCC is Revised as below:-**

IF THE CONTRACT IS EXTENDED BEYOND THE CONTRACT PERIOD FOR ANY REASON OTHER THAN THOSE ATTRIBUTABLE TO THE CONTRACTOR OR FORCE MAJEURE CONDITIONS, THE CONTRACTOR WILL BE COMPENSATED BY PAYMENT OF OVERRUN CHARGES AT THE RATE OF **RS.100000/- (One Lakh Only)**

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PER MONTH. OVERRUN COMPENSATION WILL BE PAID FOR THE EXTENSION ATTRIBUTABLE TO BHEL ONLY. NO OVERRUN COMPENSATION WILL BE PAYABLE FOR THE EXTENSION ON ACCOUNT OF REASONS ATTRIBUTABLE TO CONTRACTOR AND/OR FORCE MAJEURE CONDITIONS. OVERRUN COMPENSATION FOR ELIGIBLE PERIOD SHALL BE IN PROPORTION TO THE PROGRESS ACHIEVED AGAINST THE PLAN FOR RESPECTIVE PERIOD.

**11. Broad Terms & Conditions of Reverse Auction**

In continuation to Clause 19.0 of NIT (Notice Inviting Tender) following are the broad terms and conditions of Reverse Auction is given in Annexure V of NIT:

- 11.1. Against this enquiry for the subject item/ system with detailed scope of supply as per enquiry specifications, BHEL may resort to “REVERSE AUCTION PROCEDURE” i.e., ON LINE BIDDING (THROUGH A SERVICE PROVIDER). The philosophy followed for reverse auction shall be English Reverse (No ties).
- 11.2. BHEL reserves the right to go for Reverse Auction (RA) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. All bidders to give their acceptance 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 Reverse Auction, only those bidders who have given their acceptance to participate in RA will be allowed to participate in the Reverse Auction. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit „online sealed bid“ in the Reverse Auction. Non-submission of „online sealed bid“ by the bidder will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
- 11.3. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- 11.4. Those bidders who have given their acceptance for Reverse Auction (quoted against this tender enquiry) will have to necessarily submit ‘online sealed bid’ in the Reverse Auction. Non-submission of ‘online sealed bid’ by the bidder for any of the eligible items for which techno-commercially qualified, will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines in vogue.
- 11.5. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
- 11.6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
- 11.7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
- 11.8. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
- 11.9. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding

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charges, Taxes and Duties, Freight charges, Insurance, Service Tax for Services and loading factors (for noncompliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.

- 11.10. Reverse auction will be conducted on scheduled date & time.
- 11.11. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
- 11.12. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, if required, (Annexure VII) as provided on case-to-case basis to Service provider within two working days of Auction without fail.
- 11.13. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL shall be opened as per BHEL"s standard practice.
- 11.14. Bidders shall be required to read the "Terms and Conditions" section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the "Business Rules of Reverse Auction", which will be communicated before the Reverse Auction.
- 11.15. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
- 11.16. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- 11.17. In case BHEL decides to go for reverse auction, the H1 bidder (whose quote is highest in online sealed bid) may not be allowed to participate in further RA process.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



# TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

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<b>Sl no</b>	<b>Description</b>	<b>Chapter</b>	<b>No. Of pages</b>
<b>Volume-ia</b>	<b>Part-i: contract specific details</b>		
1	Project information	Chapter-i	2
2	Scope of works	Chapter-ii	12
3	Facilities in the scope of contractor/BHEL (scope matrix)	Chapter-iii	7
4	T&Ps and MME'S to be deployed by contractor	Chapter-iv	4
5	T&Ps and MME'S to be deployed by BHEL on sharing basis	Chapter-v	1
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**Volume II B (section A, Section B, Section C, Section D2, Section D5, Section D6, Section D7, Section D8, Section D11, Section D 13, Section D15, Section D17, Section D 18) is integral Part of Vol IA and uploaded as file titled Vol II B.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

<b>1.0</b>	<b>Project information</b>
1.1	<p style="text-align: center;"><b><u>Project information</u></b></p> <p><b>Introuction</b></p> <p>1. Purchaser / owner : <b>M/s National Thermal Power Corporation Limited. (NTPC)</b></p> <p>2. Project title : <b>2x660 mw NTPC Mouda Phase II</b> <b>(Extension of 2x500 MW Phase- I)</b></p> <p><b><u>Location and approach :</u></b></p> <p>1. Location : Village-Mouda, dist- nagpur state–maharashtra, india.</p> <p>2. Address details : 2x660 MW NTPC Mouda. Village – Mouda Taluka – Mouda Dist.- Nagpur Maharashtra state, India"</p> <p>3. Nearest port : Mumbai</p> <p>4. Nearest Air Port : Nagpur/ 50 km from Mouda town</p> <p>5. Approach road : Mouda site is connected to Mouda town by 04 km long all weather roads. Mouda town is 40 km from Nagpur on NH-6.</p> <p>6. Railway approach : Nearest railway station Chacher 8 kms away from site on Nagpur-Kolkata broad gauge section of south eastern railway (main line)</p> <p>7. Data of seismic design : As per IS 1893</p> <p>8. Ambient air temperature (average) :</p> <p>a) Maximum : 50 degree centigrade</p> <p>b) Minimum : 6 degree centigrade</p> <p>11: Average relative humidity: 60 %</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

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	<p>12: Wind speed : 44 m/s at ten meters above the ground level as per IS 875 (part-3).</p> <p>13. Geographical condition: Latitude- 21-10-50 N Longitude -79-23-52 E</p>
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**The bidder is advised to visit and examine the site of works and its surroundings and obtain for himself on his own responsibility all information that may be necessary for preparing the bid and entering into the contract. All costs for and associated with site visits shall be borne by the bidder.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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### 2.0 Scope of work

#### A) Supply Contract:

The work to be carried out under the scope of these specifications is broadly as under:

1. Preparation of detailed drawings, bill of materials, material codification, obtaining approvals from BHEL Project Engineering Management / NTPC:
  - a. Preparation of fabrication drawings, joint design calculations and all other general and special requirements, including appointment of a separate agency for the above work, approved by BHEL for review.
  - b. Approval of fabrication drawings from BHEL Project Engineering Management / NTPC. (Approval of fabrication drawing does not relieve the bidder from the responsibility of its correctness and accuracy).
2. **Supply of finished materials at site** as per BOQ of scope of supply work consisting of following:
  - a. Unloading and Receipt of steel materials (raw materials) from vehicles using bidder's own T & P and manpower at bidder's facilities / works/ factory, stacking, stock keeping, watch & ward etc.
  - b. Fabrication, welding, destructive, non-destructive and any other tests as per approved QP / BHEL requirement.
  - c. Primer coat of steel sections of self-curing inorganic Zinc Silicate Primer coat (solid by volume minimum 60%) of minimum 75 micron dry film thickness (DFT) applied over blast cleaned surface to near white metal conforming to Sa 2 1/2 finish of Swedish Standard SIS-05-5900 complete as per specification, drawings and instructions of the Engineer.
  - d. The primer coat shall be applied in shop / works/ factory immediately after **shot blast cleaning** using **copper slag media** by **Airless spray technique** on structural steel made from mild steel conforming to IS:2062, pipes conforming to IS:1161/IS:1239, chequered plate conforming to IS:3052 and mild steel rounds involving rolled sections (including mild steel rounds), built up sections fabricated out of plates, rolled sections and combination of plates and rolled sections, in columns, beams, junction towers, trestles, conveyor galleries, gantry girders, bunkers, silos, hoppers, roof trusses, portals, laced purlins, space frames, shear connectors, hangers, struts, monorails, galleries, stiffeners, wall beams, sheeting runners, brackets, stub columns, bracings, cleats, trestles, base plates, splice plates, gratings, chequered plate flooring, decking and seal plates, diaphragm, steel frame grid over false ceiling, walkway platforms, ladders, stairs, stringers, treads, landings, hand-rails, toeplates, MS Rungs, insert plates, edge angles - embedment's, lugs, posts,

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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stays, louvers, lacings, gusset plates, safety chains for walkways adjacent to crane girders etc.

- e. Straightening, making cutting plan, cutting, bending, rolling, grinding, drilling, bolting, temporary pre assembly- full length column height (**Trial assembly**), edge preparation, preheating (min preheat and interpass temperature of 20 degree C for welding over 20 mm and upto 40 mm & 66 degree C for welding over 40 mm and upto 63 mm & 110 degree C for thickness over 63 mm & use of low hydrogen/ radiogenic electrodes), post heating, testing of welders, inspection of welds, visual inspection, non destructive and special testing, rectification and correction of defective welding works, production test plate, inspection and testing as per erection scheme.
- f. Intermediate coat of Polyamide cured pigmented Titanium Dioxide Epoxy based paint (solid by volume minimum 60%) of min. 75 microns DFT applied over primer. (Intermediate coat paints shall be from same manufacturer and the paints shall have compatibility with one another). The rate shall be inclusive of total paint over the primer.
- g. The total thickness of finished product at works (Primer 75 microns + Intermediate Coat 75 microns = 150 microns).
- h. Preassembly of columns (2-3 pieces of 12M Length each column), **Trial assembly** of finished material at bidder's works / factory as per BHEL instructions / approved drawings.
- i. Delivering finished products from works / factory to NTPC Mauda project site as per **BOQ of rate schedule - A** (Supply part), specification, drawings and instructions of the Engineer.

### **B) E & C Contract:**

- a. Unloading, receipt, verifying, stacking, stock keeping, shifting, preservation & handling of finished material using bidders own T & P and manpower at NTPC Mauda project site.
- b. Pre- assembly (pre-assembly of columns in 2-3 pieces of 12M Length each column), erection, alignment, bolting/ welding/ fastening, grouting, testing stability of structures, destructive, non-destructive testing and any other tests as per approved FQP /BHEL requirement etc. as per **BOQ of rate schedule - B** (E & C part) of the scope of work.
- c. A provision is made for Providing and making arrangements for erection of bunker shells of 4 Nos Mill bunker in each unit (weight of bunker shells in 1 No mill bunker is 176.8 MT) as per S. No. 201 (b) of **BOQ of rate schedule - B** (E &

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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- C part) of the scope of work by using **Strand Jack Method**, alignment & welding. It includes supply of strand jacks in sets (minimum lifting capacity 50 MT per jack) connected with diesel/electric power packs, set of hydraulic hose and its accessories, set of strands, Hilman roller (if required), spare parts, specialist tools, supervisor/lifting engineer, Rigging Superintendent, Jack operators, labours, upto the specified height as per drawing. Preparation of drawing/scheme for lifting operation, design & detailing of any additional structural modification / fabrication, erection and welding of those structures like track beam for shifting of bunker shell pieces to the designed location, trolley, lifting lugs, anchor plates, anchor/jack support beams, design checks for safe operation of jacks with respect to the existing/erected structural members and obtaining approval from BHEL-PEM all complete as per specification, drawings and instructions of the Engineer.-In-Charge.(BHEL crane shall be provided for feeding of bunker shell pieces at feeder floor elevation). This item at S No 201 (b) shall be operated only as required by BHEL on prior intimation and payment shall be made extra over above ST No 201 (a)
- d. Installation of temporary structures (Scaffolding, Access ladders, Working Platforms etc.), setting column bases, surface preparation, touch-up painting, dismantling and removal of all temporary structures (weight of temporary structures not payable) complete with all labour, electrodes and other consumables.
- e. Installation of all items as per BOQ **of rate schedule - B** (E & C part) of the scope of work.
- f. Equipment testing (mechanical) and all other activities required for completion of the work.
- g. Providing and Applying finish coat and final finish coat of paints viz. final finish coat of Polyurethane based colour pigmented paint (solid by volume minimum 40%) of min. 25 micron DFT over finish coat of Polyamide cured colour pigmented Epoxy based paint (solid by volume minimum 60%) of minimum 75 microns DFT (Total 75+25= 100 microns) at site over and above finish product received from works / factory at all elevations to achieve an even shade with all materials, labour, equipment, handling, including protection and cleaning, scaffolding etc. complete as per specification, drawings and instructions of the Engineer. (Note: Intermediate, top and finishing coat paints shall be from same manufacturer and the paints shall have compatibility with one another).
- h. Material Re – conciliation and completion of facility including handing over of bunker structures, raw coal bunkers, coal handling transfer points, coal conveyor

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

galleries and its supporting trestle of bunker structures at NTPC Mauda project site as per specification, drawings and instructions of the Engineer.

- i. Obtaining structural stability certificate issued by competent authority for the scope of work under this tender specification.

The following documents are attached as reference documents along with as volume -IIB and form integral part of these specifications:

S N	Volume	Section	Title	Specification no.	Rev. No.
01	VOLUME IIB	SECTION – A	Scope of work	PE-TS-385-600-C01	00
02	VOLUME IIB	SECTION – B	Project information	PE-TS-385-600-C01	00
03	VOLUME IIB	SECTION - C	Specific technical requirements for structural works	PE-TS-385-600-C01	00
04	VOLUME IIB	SECTION – D SUB- SECTION – D2	Cement concrete (plain & reinforced)	PE-TS-385-600-C001	00
05	VOLUME IIB	SECTION – D SUB- SECTION – D5	Metal doors, windows, ventilators, louvers etc	PE-TS-385-600-C001	00
06	VOLUME IIB	SECTION – D SUB- SECTION – D6	Glass and glazing	PE-TS-385-600-C001	00
07	VOLUME IIB	SECTION – D SUB- SECTION – D7	Rolling steel shutters & grills	PE-TS-385-600-C001	00
08	VOLUME IIB	SECTION – D SUB- SECTION – D8	Miscellaneous metals	PE-TS-385-600-C01	00
09	VOLUME IIB	SECTION – D SUB- SECTION – D11	Painting, whitewashing, polishing	PE-TS-385-600-C01	00
10	VOLUME IIB	SECTION – D SUB- SECTION – D13	Sheet work in roof & siding	PE-TS-385-600-C01	00

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

11	VOLUME IIB	SECTION – D SUB- SECTION – D15	Drainage & sanitation	PE-TS-385-600- C01	00
12	VOLUME IIB	SECTION – D SUB- SECTION – D17	Fabrication of structural steel work	PE-TS-385-600- C01	00
13	VOLUME IIB	SECTION – D SUB-SECTION - D18	Erection of structural steelwork	PE-TS-385-600- C01	00

Bidders shall take note of and account for the contents of above document's while submitting their offer. These documents are for reference purpose only and in case of any ambiguity this tender specification / Approved drawing / BHEL Engineer instruction shall prevail over these reference documents.

Specific attention is drawn to the clauses and sub-clauses vide serial numbers 6.00.00 entitled rates and measurements of sub-section-D17.

### 2.0.1

These specifications include supply of materials for various items of work as per BOQ and drawings. The item rate offered by the contractor shall be in consideration of the above.

### 2.0.2

With respect to clause no. 6.02.23 sub-section D-17 regarding payment of PTFE bearing it is clarified the payment will be made based on actual quantity in numbers executed and so certified by BHEL.

### 2.0.3

**With respect to clause no. 2.06.02 sub-section D-18 regarding "yard" it is clarified that no space for fabrication-cum-storage yard for fabrication will be made available within the plant boundary. The contractor shall accordingly arrange their fabrication establishment including T & Ps as required for above fabrication work i.e fabrication shall be done at vendor's work / factory.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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### **Specific for Supply Contract**

#### **2.1) Procurement of raw materials by successful contractors and testing:**

Material required for the entire job for the completion of entire scope Chq. Plates/MS plates, Flats/ beams/ channel/, angles etc. (rolled sections), Stainless steel liner, bolts, nuts, washers etc. have to be arranged by the contractor. The total quantity of steel required for the work will be calculated from the approved fabrication drawings including laps, chairs and lugs. In case any such sectional weights are not available in the above documents, the manufacturer recommendation / BHEL Engineer instruction shall be binding. BHEL reserves the right to reject any material not found satisfactory.

1. The vendor shall procure raw material / components / sub-assemblies only from BHEL / NTPC approved vendors / sources with adequate manufacturing and testing facilities. In case of procurement from Sole Selling Agents / Authorized Dealers, supporting correlated test certificates of manufacture shall be furnished. In the absence of such certificates, tests as per the governing specifications shall be arranged in independent test house / laboratory approved by BHEL / NTPC.
2. Items covered under this contract shall be subjected to Inspection / Testing and Quality Surveillance. The inspection agency shall at reasonable times, have access to vendor's works. Quality control records. All reasonable facilities required for carrying out the inspection and testing efficiently, shall be provided by the vendor, free of cost. The method of inspection shall be agreed upon in the Approved "Quality Plan" which shall form part of the contract. Wherever possible, standard quality plan, by way of minimum requirements, are included in the bid specification as a guideline.
3. The bidder shall abide fully by all the clauses of Shop inspection and tests covered in Technical Specification. BHEL reserves the right to consider any stage of inspection / test as a "Hold Point", beyond which work shall not proceed without acceptance of that stage.
4. The minimum Inspection / Testing requirements shall conform to relevant codes / standards as well as Statutory Regulations applicable, whether or not specifically mentioned in the specification, in addition to those normally carried out by the vendor.
5. Unless the Inspection / Test is waived, the inspection agency shall attend the Inspection / Test within 15 days of the date of receipt of notice from the vendor, failing which the vendor may proceed with the Inspection / Test and shall forward duly certified copies of the Inspection / Test Reports. After successful completion of the Inspection / Test or receipt of Vendor's Test reports mentioned above, the Inspection agency shall issue within 15 days, the acceptance certificate.

Wherever Customer / Consultant "Hold Points" are indicated in the approved Quality Plan an additional 10 days' notice shall be given for Inspection / Testing.

6. Before sending written notice to the Inspection Agency, the Vendor's own inspection staff should have fully inspected / tested the item. If the visit of the Inspection Agency proves to be futile on account of the item not being ready for inspection / Testing or the same being rejected to reasons which could otherwise, have been detected during Vendor's own Inspection / Test, the cost incurred by Inspection Agency on such visits shall be borne by the vendor.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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7. Approval or passing of Inspection / Test and thereby issue of the acceptance Certificates or waive of Inspection by the Inspection Agency shall not relieve the vendor of his responsibilities and obligations under the contract and also shall not bind BHEL to accept the item should it, on further tests after receipt at destination, erection / commissioning be found not complying with the Contract.
8. All necessary documents such as test reports, test certificates, test curves, stress relieving charts, radio graphic films and other non-destructive tests, copies of the welding procedure, welder qualification certificates and other documents in support of adherence to Quality plan shall be furnished to the Inspection agency. The Quality Assurance document consisting of certified copies of all of the above complied sequentially by the vendor shall be sent to BHEL prior to dispatch.
9. The inspection schedule shall be submitted by the Vendor after receipt of LOI.
10. The vendor shall provide test pieces as required by Inspection agency to enable him to determine the Quality of Material supplied under the contract. If any test piece fails to comply with the requirements the inspection agency may reject the whole material represented by the test piece.
11. In the event of inspection revealing poor quality of goods, BHEL shall be at liberty to specify additional Inspection / Test, required ascertaining Vendor's compliance with the equipment specification.
12. All welding shall be carried out in accordance with applicable codes or approved equal. Welding procedure and Welder's qualification shall be got approved. Welding consumables used shall be approved by the inspection agency. Approved methods of radiographic, ultrasonic or other non-destructive testing as applicable shall be used for the welding of critical components / assembly.
13. If considered necessary by Inspection Agency, multiple assemblies shall be fully erected and tested at Vendor's work prior to packing and dispatch to site.
14. For all items, 'Type Test Certificates' as per governing specification shall be furnished. In the absence of the same, such type tests shall be arranged at Vendor's works in the presence of the Inspection Agency or in independent Test house / laboratory approved by BHEL / NTPC.
15. None of the item shall be dispatched without the receipt of "Quality Surveillance Note" from the Inspection Agency as well as the written approval in the form of Material Dispatch Clearance Certificate (MDCC) unless specifically agreed. The affixing of Inspection Stamp on the item by the Inspection Agency is for the purpose of identification only and shall not be considered as a token of acceptance.
16. The above conditions are equally applicable to the agency on which the vendor has sub ordered as it shall be construed as if the works are manufactured or assembled at Vendor's own premises of works.

### **2.2) QUALITY PLAN:**

1. The Quality Plan is a document, which presents in a tabular form the Quality control checks exercised by the vendor during the various stages of manufacture and dispatch in order to meet the requirements of this specification. This plan details, step by step, the operations, components and characteristics being controlled, method of exercising such controls, the

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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importance (criticality) of the control (critical major or minor) with respect to the functioning of the item the extent to which the controls are exercised (100% samples, one per heat, etc.). Acceptance norms for the characteristics, method of maintaining records thereof as a proof of having exercised the control successfully, the agency responsible for performing and witnessing the checks and for verifying the records thereof.

2. The bidders shall furnish the Quality Plan for approval from BHEL / NTPC. In case the Standard Quality plans are included in tender specification, the bidder shall furnish his Quality Plan strictly in line with the same. Instructions for filling the Quality Plan format are given on the back of the format.

3. Copies of Bidder's/Bidder's Collaborators catalogues/drawings/standards/specifications/procedures etc. as mentioned in reference document of the Quality Plan shall be furnished for approval.

4. In the Quality Plan, the bidder shall give in detail, the quality control checks exercised by him during the various stages of manufacture such as:

- a. All bought out items and incoming material checks carried out at sources and on receipt.
- b. Process of manufacture i.e. welding, heat treatment etc.
- c. Manufacture of various components, sub-assemblies and assembly.
- d. Final Inspection and Testing including Performance Test at shop
- e. Surface preparation and painting
- f. Packing, Marking and Despatch.

### 2.3) Inspection Agency:

Inspection of packages shall be carried out by agency as per below Inspection category of packages:

1. **Cat I:-** Inspection shall be done jointly by NTPC, BHEL & Successful bidder.
2. **Cat-II:-** Inspection shall be done by BHEL & Successful bidder.
3. **Cat-III:-** Certificate of Compliance shall be furnished by Successful bidder.

Please note, for Cat I & II items BHEL reserve the right to carry inspection by themselves or through nominated third party. For Inspection agency for various items, vendor may refer to Quality Plan.

### 2.4) Material Despatch Clearance Certificate (MDCC)

1. When the tests have been satisfactorily completed at the Seller/Contractor's works, the Inspection Agency shall issue a certificate to that effect within fifteen (15) days after completion of tests, but if the tests were not witnessed by the Inspection Agency or his representative, the certificate would be issued within fifteen (15) days of the receipt of the test certificates by the Inspection Agency.
2. BHEL /NTPC will issue MDCC to the Seller/Contractor based on the QS Note/Report from the Inspection Agency.
3. Seller/Contractor will not dispatch any material before issue of MDCC by BHEL /NTPC.
4. The satisfactory completion of these tests or the issue of MDCC, shall not bind BHEL /NTPC to accept the supply/equipment, should it, on further tests after erection, be found not to comply with the contract provisions.

**For Cat-I** item, MDCC shall be issued by NTPC and it's the responsibility of vendor to arrange MDCC from them, and original MDCC shall be attached with Invoice by Vendor for claiming payment from BHEL.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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For Cat-II & Cat-III items, MDCC shall be issued by NTPC, which shall be valid for vendor payment.

### 2.5) GENERAL INSTRUCTION FOR DISPATCH:

1. No equipment / material shall be dispatched without prior consent of BHEL / NTPC. Vendor shall dispatch the equipment / material only after receipt of "Quality Surveillance Note" and Material dispatch Clearance Certificate (MDCC) issued by BHEL / NTPC.
2. Vendor shall notify in writing to site at least within 15 days in advance of shipment, the probable date, when the equipment / material shall be ready for dispatch.
3. Immediately after the shipment is made, necessary shipping / transport documents shall be sent by the vendor in accordance with the instructions of BHEL. The shipping documents / transport documents shall comprise of the following:
  - a) Bill of lading/ Railway Receipt / Lorry Receipt as applicable
  - b) Freight invoice
  - c) FOB/FOR Invoice
  - d) Packing List (No of copies as required)
  - e) Certificate of origin
  - f) Letter to Insurers
  - g) Quality Surveillance Note
4. The distribution procedure for the above documents shall be as per the "dispatch instructions".

#### A) Consignee Address:

Construction Manager / BHEL Site office,  
2x660 MW NTPC Mauda STPP, Stage II,  
Mauda, Distt- Nagpur (Maharashtra) Pin- 441104

**Note:** 1. Consignee address in LR should be strictly as per above.

2. Seller / contractor to note that to effect "Sale in Transit", BHEL shall issue "Delivery Note" to the Transporter for transferring the ownership from BHEL to customer (NTPC).

3. Delivery note shall be carried by transporter along with other dispatch documents.

#### B) Road Permit Requirement: Not required.

#### C) Mode of Dispatch: By Road

**Note:** It is Seller / contractor responsibility to ensure availability of trucks well in advance for dispatch of material to meet contractual delivery requirement and as per instruction of BHEL engineer.

#### D) Transit Insurance: In BHEL Scope

Policy Nos:

**SCE:** 500300/44/12/04/40000028

**MARINE:-** 500300/21/12/00000099

**Policy period:-** 01.02.2013 – 30.11.2016 (45 months)

**Underwriter and its contact person details:**

M/s United India Insurance Co. Ltd (UIIC)

(A Company owned by the government of India)

Sh. Vijay Sharma

Chief Regional Manager (CRM)

Corporate Cell, New Delhi,

D-24 & E-25, 2<sup>nd</sup> Floor,

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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Himalya House, 23, KG MARG  
New Delhi- 110001

Telephone: +911146016861; E-mail: [viiavsharma@uiic.co.in](mailto:viiavsharma@uiic.co.in)

Prior dispatch intimation shall be issued to Insurance agency about the value of consignment, dispatch details, along with one set of documents consisting of LR/RR copy, packing list / Challan indicating the items dispatched (with their weights.) A copy of above should be sent to BHEL Mauda site office (address same as consignee address).

### **E) Packing:**

1. The packing shall be in conformity with specification and shall be such as to ensure prevention of damages, corrosion, deterioration, shortages, pilferage and loss in transit or storage.
2. Packing list shall be submitted as per standard format along with advance set of documents for claiming payment which shall also indicate :-
  - a) Packing size.
  - b) Gross weight and net weight of each package.
  - c) Contents of the package with quantity of each item separately.

### **F) Transportation & Freight Charges:**

1. All road dispatches shall be only through the carriers approved by the BHEL.
2. Owing to any reason, in case the seller / contractor has to resort to a mode of transport other than what was contemplated, to keep up the delivery / completion schedule incurring extra expenditure, such extra expenditure shall be borne by the seller / contractor.
3. Freight charges shall be borne by the seller / contractor.

### **2.6) MATERIAL RECEIPT CERTIFICATE:**

The Seller/Contractor shall arrange Material Receipt Certificate (MRC) at project site, duly signed by the BHEL/ NTPC Site Engineer, after receipt of the material at site and its physical verification.

### **2.7) SHORTAGES/DAMAGES:**

Any shortages or damages during transit, transportation or handling at site, including at the time of erection and commissioning, shall be made good by the Seller/Contractor at his risk and costs, to meet the project schedule. In case of faults/discrepancies in any material, component, sub-assembly, assembly, etc., the same shall be supplied/replenished free of cost to enable the equipment to be put in service. Shortages in some cases shall also be replenished free of cost.

### **2.8) Buyer and Paying Authority:**

**A) For Inter – state sales (where CST is applicable):**

BHEL PSWR, Nagpur

**B) For Intra – state sales (where VAT is applicable):**

BHEL PSWR, Nagpur.

### **2.9) Dispatch Documents required (to be furnished by vendor):**

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BHEL-PSWR

Tender Specification No: BHE/PW/PUR/MADT1-STR U-4/1340

Technical Conditions of Contract –Volume I A (Part I : Contract Specific Details)

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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**A: For customer billing by PSWR**, the supplier shall provide the following documents to BHEL-PSWR in 4 sets:

1. Copy of vendor Invoice (Original Invoice in case of VAT).
2. Original LR
3. Copy of Packing List indicating Quantity / Gross weight/Net Weight and NTPC approved BBU item no. wherever applicable against each item dispatched.
4. MDCC (Original NTPC MDCC, if applicable).
5. CHP issued by NTPC – Original (if applicable).
6. Insurance intimation copy
7. Test certificate / Inspection Reports- Original (For Cat II & III packages).

**B: For vendor payments by PSWR**, the following documents are required in 4 sets:

1. Original vendor Invoice (Paying authority TIN should be mentioned in the Invoices).
2. LR copy (Consignee address shall be BHEL Mauda site).
3. Packing list.
4. Copy of insurance intimation letter / e-mail. (Intimation to Insurance agency to be sent on the same day of dispatch.)
5. Guarantee certificates in line with PO terms- Original.
6. MDCC – Copy.

In addition to the above, vendor may furnish mfg. clearance/drg/docs approval date for the purpose of determining contractual delivery for expeditious processing of Invoices.

### **Specific for E & C Contract**

#### • **Field Quality Plan**

1. Vendor shall furnish “Field Quality Plan” detailing out the specific Quality Control Procedure covering the following activities:
  - a) Packing marking and dispatch of Material / Equipment.
  - b) Receipt of Materials / Equipment and handling at site.
  - c) Storage and preservation
  - d) Pre erection.
  - e) Erection
  - f) Pre commissioning
  - g) Commissioning
  - h) Post commissioning
2. Relevant Log sheets to be filled at site and check lists for erection and commissioning prepared by Vendors shall be submitted for **BHEL / NTPC's approval**.
3. The submission schedule for Field Quality Plan, Log sheets and check – lists shall be finalized in the vendor drawing / document submission schedule.
4. All requirements in respect of erection and commissioning as specified, and as per other statutory regulations, if any, in addition to the practices followed by vendor, shall be considered while preparing Field quality plan and check lists.
5. All Pre- commissioning tests to be performed at site shall be listed in the Field Quality Plan.
6. Copies of catalogues/drawings/standards/specifications/procedures etc. as mentioned in the field quality plan shall be furnished to BHEL.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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### **General requirements – Common to all work**

3.01.

The intent of specification is to provide supply & services according to the most modern and proven techniques and codes. The omission of specific reference to any method, equipment or material necessary for proper and efficient execution of this work shall not relieve the contractor of the responsibility of providing such facilities to complete the work without any extra compensation.

3.0.2

The terminal points decided by BHEL should be final and binding on the contractor for deciding the scope of work and effecting payment for the work done.

3.0.3

The work shall be executed under the usual conditions affecting major power plant construction and in conjunction with numerous other operations at site. The contractor and his personnel shall cooperate with personnel of BHEL, BHEL's customer (NTPC), customer's consultants and other contractors, coordinating his work with others and proceed in a manner that shall not delay or hinder the progress of work of the project as a whole.

3.0.4

The work covered under this specification is of highly sophisticated nature, requiring the best quality workmanship, supervision, engineering and construction management. The contractor should ensure proper planning and successful & timely completion of the work to meet the overall project schedule. The contractor must deploy adequate quantity of tools & plants, modern / latest construction aids etc. He must also deploy adequate trained, qualified and experienced supervisory staff and skilled personnel.

3.0.5

Contractor shall supply, erect all the materials / equipment's as per the sequence & methodology prescribed by BHEL depending upon the technical requirements, and availability of materials & fronts etc. BHEL engineer's decision regarding correctness of the work and method of working shall be final and binding on the contractor. No claims for extra payment from the contractor will be entertained on the ground of deviation from the methods / sequence adopted in erection of similar sets elsewhere.

3.0.6

All necessary certificates and licenses, permits & clearances required to carry out this work from the respective statutory/ local authorities are to be arranged by the contractor at his cost in time to ensure timely supply & smooth progress of work.

3.0.7

The work shall conform to dimensions and tolerances specified in the various drawings / documents that will be provided during various stages of erection. If any portion of work is found to be defective in workmanship, not conforming to drawings or other stipulations due to contractor's fault, the contractor shall dismantle and re-do the work duly replacing the defective materials at his cost, failing which the work will be got done by BHEL and recoveries will be effected from the contractor's bills towards expenditure incurred including cost of materials and departmental overheads of BHEL.

3.0.8

The contractor shall perform any supply / services, tests etc., which may not be specified but nevertheless, required for the completion of work within quoted rates.

3.0.9

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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The contractor shall execute the work in the most substantial and workmanlike manner. The stores shall be handled with care and diligence.

### 3.0.10

BHEL reserves right to recover from the contractor any loss which arises out of undue delay / discrepancy / shortage / damage / theft at project site or any other causes due to contractor's lapse during any stage of work. Any loss to BHEL due to contractor's lapse shall have to be made good by the contractor.

### 3.0.11

All cranes, transport equipment, handling equipment, tools, tackles, fixtures, equipment, manpower, supervisors/engineers, consumables etc, except otherwise specified as BHEL scope on free issue, required for this scope of work shall be provided by the contractor. All expenditure including taxes & duties and incidentals in this connection will have to be borne by him unless otherwise specified in the relevant clauses. The contractor's quoted rates should be inclusive of all such contingencies.

### 3.0.12

All works such as cleaning, leveling, aligning, trial assembly, dismantling of certain equipments / components for checking and cleaning, surface preparation, fabrication of structures, tubes and pipes as per general engineering practice and as per BHEL engineer's instructions, cutting, gouging, weld depositing, grinding, straightening, chamfering, filing, chipping, drilling, reaming, scrapping, lapping, fitting up etc as may be applicable in such erection works and which are treated incidental to the erection works and necessary to complete the work satisfactorily, shall be carried out by the contractor as part of the work within the quoted rates.

### 3.0.13

The contractor shall make all fixtures, temporary supports, steel structures required for jigs & fixtures, anchors for load and guide pulleys required for the work. Contractor shall arrange necessary steel for such usage.

### 3.0.14

Contractor shall plan and transport finished materials from works / factory to erection site and erect them in such a manner and sequence that material accumulation at such locations does not lead to congestion in these areas. Materials shall be stacked neatly, preserved and stored in the contractor's shed and at work areas in an orderly manner. In case it is necessary to shift and re-stack the materials kept at work areas/ site to enable other agencies to carry out their work or for any other reason, same shall be done by contractor most expeditiously. No claim for extra payment for such work will be entertained.

### 3.0.15

Plant materials should not be used for any temporary supports / scaffolding/ preparing pre-assembly bed etc.

### 3.0.16

The quantities of various items of work to be executed under this contract is generally as per the rate schedule. These quantities are approximate and meant only to give a general idea to the tenderer about the magnitude of the work involved. Actual quantum and type of equipments will be based on the relevant erection documents / drawings which will be furnished to the contractor in due course of erection and the weight and quantity as per the relevant engineering documents will only be admissible for the billing purpose.

### 3.0.17

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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The work shall be carried out strictly in accordance to the "field quality plan" approved by BHEL/client. Contractor, jointly with BHEL, shall prepare all necessary records of measurements/readings/ protocols etc.

### 4.0.1 **General responsibility of the contractor**

#### 4.0.2

The contractor shall have total responsibility for all equipment and materials (loose, semi-fabricated, fabricated) in his custody at contractor's stores / works/ factory, or erected by him at site. He shall effectively protect the finished works from action of weather and from damages or defacement and shall also cover the finished parts immediately on completion of work as per BHEL engineer's instructions. The machine surfaces/finished surfaces should be greased and covered.

#### 4.0.3 Preservation & protection of components

At all stages of work, equipments/materials in the custody of contractor, including those erected, will have to be preserved as per the instructions of BHEL. The contractor shall provide necessary preservation agents including the primer & paint for the above work.

#### 4.0.4

The contractor shall make suitable security arrangements including employment of security personnel and ensure protection of all materials/ equipment in their custody and installed equipments from theft/fire/pilferage and any other damages and losses.

#### 4.0.5

Contractor shall collect all scrap/ wastage materials periodically from various area of work site, deposit the same at one place earmarked at site or shift the same to a place earmarked in BHEL/ client's stores. In case of failure of contractor in compliance of this requirement, BHEL will make suitable arrangement at contractor's risk and cost.

#### 4.0.6

For any class of work for which no specifications have been laid down in these specifications, work shall be executed as per the instructions of BHEL.

#### 4.0.7

BHEL is operating web based computerized site operation management system (SOMS)/e-store/SCMS that includes, inter-alia, issue of materials, daily progress reporting, contractor's running monthly billing and material reconciliation through a computerized data management system. Contractor shall install necessary hardware to hook-up with the BHEL's system and use the same for his scope of work.

### 5.0.0 **Material handling at site**

#### 5.0.1

All finished materials unloaded by the contractor shall be stacked, stored above ground level by use of concrete or wooden sleepers / structural beams. No materials shall remain on ground at any time. All concrete or wooden sleepers required for stacking the materials shall be arranged by contractor (successful bidder of E & C package) at his own cost within the quoted rates. All other equipments like winches, d-shackles, slings of various sizes, max puller, pulley blocks, jacks, trucks, trailers etc. required for such handling of material at storage / erection site shall be arranged by contractor within quoted/accepted rates.

#### 5.0.2

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-II Scope of Work

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Contractor will have to make his own arrangement at his own cost for procurement of any other material as required for the works and of such quality as acceptable to BHEL.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

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**For Supply Contract**

Bidder must be possessing established fabrication **work shop / factory** equipped with all kinds of T & P's and other necessary requirement for supply of finished material as per specification at their own cost. The major T & P and facilities include:

1. All kinds of tools & plants like EOT/Gantry Cranes for handling of heavy built up columns,
2. Shot blasting & painting booth including compressor and spray painting,
3. Submerged arc welding, MIG welding facility,
4. Pug cutting, plasma cutting machine,
5. Drilling machine etc.

**For E & C contract:**

Sl. No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART I</b>			
3.1	<b>ESTABLISHMENT</b>			
3.1.1	<b>FOR CONSTRUCTION PURPOSE:</b>			
a	Open space for office (as per availability)	Yes		Location will be finalized after joint survey with owner
b	Open space for storage (as per availability)	Yes		For Pre assembly only. Location will be finalized after joint survey with owner.
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	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

Sl. No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc		Yes	
f	Fire fighting equipments like buckets, extinguishers etc		Yes	
g	Fencing of storage area, office, canteen etc of the bidder		Yes	
3.1.2	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			
a	Open space for labour colony (as per availability)		Yes	
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2.0	<b>ELECTRICITY</b>			
3.2.1	<b>Electricity For construction purposes only</b> of Voltage 415/440 V			FREE
a	Single point source	Yes		At a distance of 500 M from site (Distance is only estimated, it may vary upto any extent depending on site condition)

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

Sl. No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	<b>Electricity for the office, stores, canteen etc of the bidder</b>			Free
a	Single point source	yes		At a distance of 500 M from site (Distance is only estimated, it may vary upto an extent depending on site condition)
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.3	<b>Electricity for living accommodation of the bidder's staff, engineers, supervisors etc</b>			
a	Single point source		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

Sl. No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.3.0	<b>WATER SUPPLY</b>			
3.3.1	<b>For construction purposes:</b>			
a	Making the water available at single point		<b>Yes</b>	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	Water supply for bidder's office, stores, canteen etc.			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.3	<b><u>Water supply for Living Purpose</u></b>			
a	Making the water available at single point		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

Sl. No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.4.0	<b>LIGHTING</b>			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
c	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5.0	<b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>			
a	Telephone, fax, internet, intranet, e-mail etc.		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

Sl. No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.6.0	<b>COMPRESSED AIR wherever required for the work</b>		<b>YES</b>	
3.7.0	<b>Demobilization of all the above facilities</b>		<b>YES</b>	
3.8.0	<b>TRANSPORTATION</b>			
a	For site personnel of the bidder		Yes	
b	For bidder's equipments and consumables (T&P, Consumables etc.)		Yes	

Sl.no	Description <b>Part ii</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>3.9.0 Erection facilities</b>			
3.9.1	Engineering works for construction:			
A	Providing the erection/fabrication drawings for all the equipments covered under this scope		<b>Yes</b>	<b>In consultation with BHEL</b>
B	Drawings for construction methods		Yes	In consultation with BHEL
C	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes		<b>Yes</b>	"

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III : Facilities in the scope of Contractor/BHEL**

Sl.no	Description Part ii	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>3.9.0 Erection facilities</b>			
D	Shipping lists etc for reference and planning the activities		Yes	"
E	Preparation of site erection schedules and other input requirements		Yes	"
F	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	"
G	Weekly erection schedules based on SI no. E		Yes	"
H	Daily erection / work plan based on SI no. G		Yes	"
I	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	
J	Preparation of preassembly bed		Yes	
K	Arranging the materials required for preassembly		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – IV: T&Ps and MMEs to be deployed by Contractor**

<b>For E &amp; C (For Each Unit) - At site</b>			
<b>Sn</b>	<b>Description</b>	<b>Capacity (minimum)</b>	<b>Minimum quantity/remarks</b>
1	Strand Jack Arrangement for bunker shell erection	01 Set	If required as per instruction of BHEL Engineer (provisional requirement)
2	75 T CRAWLER CRANE	02 no.	As per site requirement.
3	40 T CRAWLER CRANE	01 no.	As per site requirement.
4	8/10 T HYDRA CRANE	04 no.	As per site requirement.
5	3 Phase distribution board with complete set up for withdrawal of construction power	800 amp, 415 volt	As per requirement
6	Electric cable for withdrawal of construction power	As per site requirement	As per site requirement
8	Pick and carry mobile crane (14-18MT)	01	As required
9	Trailer with horse - to handle heavy and long components etc	01	As required
10	Tractor trolley - to handle regular components of bunker etc	01	As required
11	Drilling machines : assorted types and sizes	01	To meet all requirement
12	Grinding machines : assorted types and sizes	04	To meet all requirement
13	Welding Machine	04	As required
15	MIG welding M/c	02	-do-
16	Welding Rectifier	02	Adequate
20	Baking oven and holding oven with thermostat and temperature gauge for baking coated welding electrodes	06	Adequate
21	Portable oven for coated welding electrodes	10	08
22	Pre heating / stress relieving set (heating control panel, cables, heating elements etc.)	02	Adequate
23	Radiography arrangement	Ir 192	Adequate

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – IV: T&Ps and MMEs to be deployed by Contractor**

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<b>For E &amp; C (For Each Unit) - At site</b>			
<b>Sn</b>	<b>Description</b>	<b>Capacity (minimum)</b>	<b>Minimum quantity/remarks</b>
	including the source		
24	Arrangement for UT of higher thickness joints with recording facility.	Suitable for application	Adequate
25	Radiography film viewer	Hi intensity	Adequate
27	HSFG bolt torque wrench & calibrator	02	Adequate
28	Electric winches (3-5MT)	05	Adequate
29	Hand winches (1MT)	04	Adequate
30	Hoisting & pulling devices/ pulleys etc	12	Adequate
31	Mechanical & hydraulic jacks	As per requirement	Adequate
32	Theodolite of required accuracy	01	01no.

**B: MEASURING AND MONITORING DEVICES (MMD):**

As per requirement to be finalized at site including alcometer, shall meet the requirements as per field quality plan and other erection, testing related activities.

**Note:**

- 1) All the tools and plants required for this scope of work, except the tools & plants provided by BHEL are to be arranged by contractor within the quoted rates. The list is suggestive in nature. Any additional T&P required to be arranged by the contractor.
- 2) If above mentioned t & p are not deployed in specified time BHEL will charge to contractor current market rate + 30 % overheads for non availability T&P or levy a day wise penalty for non deployment or delayed deployment.
- 3) If the works get delayed due to non-availability of T&P, BHEL reserves the right to get the work done at the risk and cost of contractor within prejudice to rights of BHEL as in GCC.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – V: T&Ps and MMEs to be deployed by BHEL on sharing basis**

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<b>For E &amp; C only - For Each Unit</b>			
Sl.no.	Description & capacity of T & P	Quantity	Remarks
01	Cranes -250 MT	01	On Sharing basis for E & C only

Note:

1. BHEL cranes on need based for heavy lift and/or high reach in bunker bay structure erection shall be made available. The allocation of these cranes will be decided by BHEL site engineer, based on its availability and other imminent needs, which shall be binding on contractor.
2. Further, use of above cranes may be allowed for any other erection related activity at the discretion & approval of BHEL site in charge.
3. Cranes deployed by BHEL shall be owned or hired by BHEL.
4. Operator and O&M for BHEL owned crane will be arranged by BHEL.
5. Operators and O&M for hired crane will be provided by the hiring agency
6. Contractor shall provide the fuel for BHEL provided cranes (hired/owned) for their use.
4. Contractor shall make necessary arrangements like lying of special sleeper beds and steel plates (all arranged by contractor), assembly and dismantling of heavy lift attachment, boom, jib etc for movement and operation of the crane.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

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### 6.1 Time schedule & mobilization

#### 6.1.1 Mobilization (For Supply)

After receipt of fax LOI, contractor shall discuss with project manager / construction manager regarding initial mobilization. Contractor shall initiate procurement action for structural materials from approved manufacture of BHEL/NTPC like SAIL etc. as per tender specification within one week of issue of fax letter of intent or as per the directive of project manager / construction manager. The successful bidder will tie up with approved detailers of BHEL/NTPC for preparation of detailed fabrication drawing, submission of same to BHEL PEM and approval from them. Appointed Detailers by the successful bidder will co-ordinate with BHEL PEM/NTPC for approval of drawing and day to day routine co-ordination with site team (Bidder/BHEL/NTPC) for any clarification during fabrication and erection.

On receipt of structural materials and approval of detailed drawings, successful bidder will start fabrication work in their “**FABRICATION WORKSHOP / FACTORY**”. They will prepare cutting plan, get it checked with BHEL/NTPC official and proceed with fabrication.

Contractor shall mobilize further resources as per requirement to commence the work of fabrication, testing, shot blasting, painting etc. of bunker structure & raw coal bunkers, Transfer points & Galleries etc. progressively augment the resources to match schedule of the project.

#### 6.1.2 Mobilization (For E & C)

After receipt of fax LOI, contractor shall discuss with project manager / construction manager regarding initial mobilization in line with receipt schedule of finished material at site. The activities for unloading, preassembly, erection & testing etc. shall be started as per direction of BHEL. Contractor shall mobilize further resources as per requirement to commence the work of erection, testing etc. of bunker structure & raw coal bunkers, Transfer points & Galleries etc. progressively augment the resources to match schedule of the project.

#### 6.1.3 Commencement of contract period and tentative schedule:-

##### Supply contract:

The date of issue of letter of award (LOA) shall be reckoned as the start of the contract period of this package and the bidder must start action of procurement of raw material & drawing approval on receipt of letter of award.

##### E & C Contract:

The date of receipt of first consignment of finished material from their works / factory and erection of first major item of bunker structure at site shall be reckoned as the start of the contract period of this package and the bidder must start action of mobilization of resources for start of erection on receipt of letter of award.

The contractor has to subsequently augment his resources in such a manner that the entire work is completed to achieve the following tentative schedule:-

01. Procurement of all structural materials and preparation of detailed fabrication drawings shall be completed within 10 months from the date of issue of letter of award.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

02. Fabrication of bunker structures including surface preparation and application of primer shall be completed within 15 months from the date of letter of award.
03. Erection of fabricated structures shall be completed within 20 months from start of erection.
04. Readiness of feeder floor for handing over to NTPC for casting by 10 months in a phased manner from start of erection.
05. Readiness of tipper floor for handing over to NTPC for casting by 16 months in a phased manner from start of erection.
06. Readiness of bunker silo by 18 months in a phased manner from start of erection.

Sl.	Package	Contract Period
01	<del>Unit#3: Supply contract: Supply of finished material at site.</del>	15 months
02	<del>Unit#3: E &amp; C contract: Preassembly, erection, testing, completion &amp; handing over etc. complete. It should be made ready to suit coal firing (Sch: Nov'15).</del>	20 months
03	<b>Unit#4: Supply contract: - Supply of finished material at site.</b>	15 months
04	<b>Unit#4: E &amp; C contract: Preassembly, erection, testing, completion &amp; handing over etc. complete. It should be made ready to suit coal firing (Sch: May'16).</b>	20 months

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.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII: Terms of Payment

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### Term of payment:-

The progressive payment for supply and E & C part on accepted price of contract value will be released as per the break up given hereinafter:-

### Stages of progressive pro-rata payments

#### 1. Supply contract:-

1. 5 % of quoted rate against item no. "201" shall be released on pro rata basis on submission and approval of detailed fabrication drawings from BHEL/NTPC.
2. 65 % of quoted rate against item no. "201" shall be released on pro rata basis against dispatch documents.
3. 25 % of quoted rate against item no. "201" shall be released on pro rata basis after receipt of Material Receipt Certificate (MRC) from site engineer of BHEL /NTPC, & submission of Form E1/ E2 against Form-C.
4. 2.5 % of quoted rate against item no. "201" shall be released after coal firing of the unit.
5. 2.5 % of quoted rate against item no. "201" shall be released after submission of all final documents as per Technical Specifications and successful completion of the Trial run operation and handing over.

**Note:** If the Trial run operation is not completed up to 24 months from supply completion for reasons not attributable to the vendor, then last 2.5% payment will be released against Bank Guarantee of an equivalent amount, valid for 12 months. This bank guarantee will be in addition to Contract Performance Bank Guarantee for 10% of the contract value (excluding taxes, duties and freight).

### Note:

1. The RA bill payment shall be made as per cl no 10.0 of chapter – X of SCC and as per cl no : 2.6 of GCC .

2. INTEREST BEARING RECOVERABLE ADVANCES if desired then as per clause No. 2.13 of GCC.

2. 100% of item rate on pro rata basis against monthly RA bills as per schedule of rate for other item numbers.

#### 2. E & C Contract:-

100% of item rate on pro rata basis against monthly RA bills as per schedule of rate for item no. 201 (a) & (b). for erection can be further break up as follows:-

1. Erection: 80% of quoted rate under item 201 (a) & (b).
2. Alignment & Welding: Balance 20% of quoted rate under item 201 (a) & (b).

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII: Terms of Payment

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### **Note:**

1. The RA bill payment shall be made as per cl no 10.0 of chapter – X of SCC and as per cl no : 2.6 of GCC .
2. INTEREST BEARING RECOVERABLE ADVANCES if desired then as per clause No. 2.13 of GCC.
2. 100% of item rate on pro rata basis against monthly RA bills as per schedule of rate for other item numbers.

### **GENERAL**

#### **MEASUREMENT OF THE WORK COMPLETED**

- A) Where payment is to be made on the basis of weight, the weight per unit given in the BHEL document only shall be taken in to consideration. In case such information is not available in BHEL documents, then the latest relevant indian standards in this regard may be applied.
- B) Spares, surplus quantity, erection contingency materials will not be paid for unless the same has been consumed in place of regular item of measurable work as per the rate schedule.
- C) Where the payment is made on the basis of item rate, actual executed quantity measured jointly shall only be paid for.
- D) It is clarified that as far as weight constituted by welding consumables and other consumables supplied by BHEL as well as by the contractor, shall not be considered for payment.
- E) BHEL engineer's decision regarding stage of payment corresponding to progress of work, calculation of weight etc will be final and binding on the contractor.
- F) No separate payment shall be made for providing grout materials and grouting of structures etc specified elsewhere in these specifications.
- G) Weight of packers and shims fabricated at site which become permanent part of equipment, will be paid for based on actual weight.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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### 8.A Taxes & Duties: (for supply portion)

- a. All bidders to note that this is a Mega ICB (International Competitive Bidding) Project. Accordingly the benefits applicable to Mega project would be granted for this project (Project with deemed export benefits). In this regard applicable documents such as **Project Authority Certificate (PAC)** will be issued by NTPC (customer). Under this Project Authority certificate **Zero % custom duty** shall be applicable on the Import contents of the supplier.
- b. NTPC Ltd. Shall issue PAC to BHEL as main contractor for availing zero custom duty for the imported supply applicable for this project ordered by BHEL and based on the above PAC, BHEL shall issue PAC to each vendor. The bidder to indicate the import contents i.e. list of item, currency of import and country of import including CIF value in their offers. BHEL shall inform, the availability of CIF value for a particular package including ceiling limit, if any, during evaluation of offer. Bidder has to pass on the benefit of availing Zero % custom duty in price offered to BHEL.
- c. All bidders to note being a Mega Project, **Excise Duty** shall **not** be included in their prices to BHEL as per the nature of the project. BHEL shall issue PAC to **main vendor** for their **self-manufactured** item only.

Concessional CST presently 2 % against Form "C" & E1/E2 is to be considered in their prices. Concessional CST/VAT shall be considered for evaluation of offers to arrive at the L1 bidder. for evaluation of offers to arrive at the L1 bidder.

The benefit of Nil Excise duty and concessional CST must be passed on to BHEL in their offer.

As regards supplies from within Maharashtra, bidders have to compulsorily provide Maharashtra VAT invoices showing the amount of VAT, even if the price quoted are inclusive of taxes and reimbursement of VAT shall be limited to the values mentioned in the price bid.

**Submission of E1/E2 forms:** Submission of E1/E2 forms shall be ensured by vendor within the time specified in sales tax act or before claiming MRC payment, whichever is earlier."

BHEL shall issue Form C to vendor on the basis of acceptance of E1/E2.

### 8.B Taxes & Duties: (for E&C portion)

#### 8.1. For All types of works excepting works covered under sl no 8.2

##### 8.1.1

The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. 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.

**However, provisions regarding Service Tax and Value Added Tax (VAT) on output services and goods shall be as per following clauses.**

##### 8.1.2 Service Tax & Cess on Service Tax

Contractor's price/rates shall be exclusive of Service Tax and Cess on Services. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax & Cess from

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

---

BHEL and pay the same to the concerned tax authorities, such applicable amount will be paid by BHEL at the prevailing Service Tax Rate (presently 12.36 %) on the admitted bill value.

**Contractor shall submit to BHEL documentary evidence of Service Tax registration certificate specifying name of services covered under this contract. Contractor shall submit serially numbered Service Tax and Cess Invoice, signed by him or a person authorized by him in respect of taxable service provided, and shall contain the following, namely,**

1. The name, address and the registration number of the contractor,
2. The name and address of the party receiving taxable service,
3. Description, classification and value of taxable service provided and,
4. The service tax payable thereon.

**All the Four conditions shall be fulfilled in the invoice before release of service tax payment.**

**Wherever, more than one route/option are available for discharge of service tax liability under a particular service, (e.g. “works contract Service”), contractor shall obtain prior written consent from BHEL site before billing the amount towards Service Tax.**

### 8.1.3 VAT (Sales Tax /WCT)

As regards Value Added Tax (VAT)/CST on transfer of property in goods involved in Works Contract (previously known as Works Contract Tax) applicable as per local laws, the price quoted by the contractor shall be inclusive of the same and in no case input or output VAT/CST will be reimbursed extra.

In any case the Contractor shall register himself with the respective Sales Tax authorities of the state and submit proof of such registration to BHEL along with the first RA bill. Contractor will submit all the details of VAT/CST paid for the contract in the prescribed format of the respective state VAT laws. Also, the contractor will issue the tax Invoices to BHEL as per the Tax laws of respective state on monthly basis. Contractor shall also be required to furnish to BHEL necessary proof of VAT remittance on monthly basis.

Deduction of tax at source shall be made as per the provisions of law and is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made.

Further, if BHEL, at the instance of customer or otherwise adopts the specific route for discharging output VAT liability itself, benefit of the reduction in liability of the contractor will be passed on to BHEL.

In case, BHEL is forced to pay any VAT liability on behalf of contractor, the same will be recovered from contractor's bill or otherwise as deemed fit

### 8.2 —‘Enabling Works’

~~The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to~~

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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~~recover the same from his bills or otherwise as deemed fit. ( i.e. rates quoted by bidder shall be inclusive of Service Tax, VAT/WCT and all other taxes and duties )~~

~~However, Since the proposed work is in the nature of 'Works Contract service' as per Service tax law, Hence, For non-corporate contractors being Individual, HUF, Proprietary Firm, Partnership Firm or Association of Persons (AOP), BHEL shall recover the applicable Service Tax under reverse charge mechanism from the contractor and remit the same with the Government as per the provisions of Law. Necessary advice/confirmation of remittance shall be issued to the contractor. The contractor shall not be eligible for any refund/reimbursement of such service tax from BHEL. It shall be the responsibility of the contractor to submit proper invoice giving all the requisite details as per Service Tax Law for the determination of the service tax liability of BHEL under reverse charge mechanism. BHEL reserves the right to determine such liability based on the invoice submitted by the contractor or otherwise independently and remittance of the same with the Government.~~

### 8.3 New Taxes/Levies

In case the Government imposes any new levy/tax on the output service/ goods/work after award of the contract, the same shall be reimbursed by BHEL at actual.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same **before opening of Price Bid**. Claim for any such impact after opening the Price Bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his price bid.

## TECHNICAL CONDITIONS OF CONTRACT (TCC) Annexure-I PAINTING SCHEME

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All primers and paints supply and painting is in the contractor's scope.

Painting scheme shall be as per approved drawing.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XI WELDING & RADIOGRAPHY

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### 11.0 WELDING, RADIOGRAPHY AND OTHER NON-DESTRUCTIVE TESTING, POST WELD HEAT TREATMENT

#### 11.1 WELDING

##### 11.1.1

INSTALLATION OF EQUIPMENT INVOLVES GOOD QUALITY WELDING, NDE CHECKS, POST WELD HEAT TREATMENT ETC. CONTRACTOR'S PERSONNEL ENGAGED SHOULD HAVE ADEQUATE QUALIFICATION ON THE ABOVE WORKS.

##### 11.1.2

THE METHOD OF WELDING WILL BE INDICATED IN THE DETAILED DRAWING/DOCUMENTS. BHEL ENGINEER WILL HAVE THE OPTION OF CHANGING THE METHOD OF WELDING AS PER SITE REQUIREMENT.

##### 11.1.3

BEFORE ANY WELDER IS ENGAGED ON WORK, HE SHALL BE TESTED AND QUALIFIED BY BHEL/CUSTOMER, THOUGH THEY MAY POSSESS THE PREVIOUS CERTIFICATE. BHEL RESERVES THE RIGHT TO REJECT ANY WELDER WITHOUT ASSIGNING ANY REASON. ALL THE EXPENDITURE IN TESTING/QUALIFICATION OF THE CONTRACTOR'S WELDER SHALL BE BORNE BY CONTRACTOR.

##### 11.1.4

UNSATISFACTORY AND CONTINUOUS POOR PERFORMANCE MAY RESULT IN DISCONTINUATION OF CONCERNED WELDER.

##### 11.1.5

THE WELDED SURFACE SHALL BE CLEANED OF SLAG AND PAINTED WITH PRIMER PAINT TO PREVENT RUSTING, CORROSION. FOR THESE CONSUMABLES LIKE PAINT /PRIMER ETC WILL BE IN THE CONTRACTOR'S SCOPE.

##### 11.1.6

WELDING ELECTRODES HAVE TO BE STORED IN ENCLOSURES HAVING TEMPERATURE AND HUMIDITY CONTROL ARRANGEMENTS. THIS ENCLOSURE SHALL MEET BHEL SPECIFICATIONS.

##### 11.1.7

WELDING ELECTRODES, PRIOR TO THEIR USE, CALL FOR BAKING FOR SPECIFIED PERIOD AND WILL HAVE TO BE HELD AT SPECIFIED TEMPERATURE FOR SPECIFIED PERIOD. ALSO, DURING EXECUTION, THE WELDING ELECTRODES HAVE TO BE CARRIED IN PORTABLE OVENS.

#### 11.2 NON DESTRUCTIVE EXAMINATION:

##### 11.2.1

CONTRACTOR SHALL PROVIDE ALL RESOURCES AND MAKE ALL ARRANGEMENTS FOR THE RADIOGRAPHIC EXAMINATION OF WELDS FOR THIS WORK. FOR REASONS OF SAFETY, INVARIABLY THE RADIOGRAPHY WORK WILL BE CARRIED OUT AFTER THE NORMAL WORKING HOURS AND CLOSE OF OTHER SITE ACTIVITIES ONLY. IN THIS REGARD, THE CONTRACTOR HAS TO ADHERE TO THE SAFETY RULES / REGULATIONS LAID BY BARC AUTHORITIES FROM TIME TO TIME.

##### 11.2.2

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XI WELDING & RADIOGRAPHY

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RADIOGRAPHY INSPECTION OF WELDS SHALL BE PERFORMED IN ACCORDANCE WITH REQUIREMENTS AND RECOMMENDATION OF BHEL ENGINEER. THE MINIMUM QUANTUM OF RADIOGRAPHIC INSPECTION SHALL BE AS PER PROVISION OF BHEL'S ERECTION DOCUMENTS. THEY MAY, HOWEVER BE INCREASED DEPENDING UPON THE PERFORMANCE OF THE INDIVIDUAL WELDER AT THE DISCRETION OF BHEL ENGINEER/BOILER INSPECTING AUTHORITY. BIDDER SHALL ALSO ARRANGE THE UT EQUIPMENT WITH RECORDING FACILITY AT HIS OWN COST. UT SHALL BE DONE AS PER REQUIREMENT OF BHEL / CLIENT. RECORDS OF UT SHALL BE PRODUCED & SUBMITTED TO AS PER SITE REQUIREMENT.

### 11.2.3

ALL X-RAY / GAMMA RAY FILMS OF WELD JOINTS SHALL BE PRESERVED PROPERLY AND BE HANDED OVER TO BHEL.

### 11.2.4

THE FIELD WELDED JOINTS SHALL BE SUBJECT TO DYE-PENETRANT/MPT/RT/ OTHER NON-DESTRUCTIVE EXAMINATION AS SPECIFIED IN THE RESPECTIVE ENGINEERING DOCUMENTS/ AS INSTRUCTED BY BHEL.

### 11.2.5

WHERE REQUIRED, SURFACE PREPARATION, LIKE SMOOTH GRINDING OF WELDED AREA, PRIOR TO RADIOGRAPHY SHALL BE DONE. IT MAY ALSO BECOME NECESSARY TO ADOPT INTER-LAYER RADIOGRAPHY/MPT/UT DEPENDING UPON THE SITE/ TECHNICAL REQUIREMENT NECESSITATING INTERRUPTIONS IN CONTINUITY OF THE WORK AND MAKING NECESSARY ARRANGEMENTS FOR CARRYING OUT THE ABOVE WORK. THE CONTRACTOR SHALL TAKE ALL THIS INTO ACCOUNT IN HIS OFFER. THE REQUIRED NDT METHOD/PROCEDURE WILL BE DECIDED BY BHEL ENGINEER AT SITE.

### 11.2.6

FOR CARRYING OUT ULTRASONIC TESTING OF WELDING JOINTS OF LARGE SIZE, IT WILL BE NECESSARY TO PREPARE SURFACE BY GRINDING AND BUFFING A SMOOTH FINISH AND CONTOUR AS NECESSARY. THE CONTRACTOR'S SCOPE OF WORK INCLUDES SUCH PREPARATION AS INCIDENTAL TO WORK.

### 11.2.7

NO SEPARATE PAYMENT FOR ANY NDE ACTIVITIES IS ENVISAGED. ACCORDINGLY THE OFFERED RATE SHALL BE INCLUSIVE OF COST OF ALL NDE.

## **11.3 HEAT TREATMENT:**

### 11.3.1

FOR THE PURPOSE OF TEMPERATURE RECORDING OF STRESS RELIEVING PROCESS, THERMOCOUPLES HAVE TO BE ATTACHED TO THE WELD JOINT. THE NUMBER OF TEMPERATURE MEASURING POINTS AND LOCATIONS SHALL BE AS PER THE STANDARDS OF BHEL. THERMOCOUPLES HAVE TO BE ATTACHED USING CAPACITOR DISCHARGE TYPE PORTABLE THERMOCOUPLE ATTACHMENT UNIT. CONTRACTOR SHALL ARRANGE SUFFICIENT NUMBER OF THERMOCOUPLE ATTACHMENT UNITS.

### 11.3.2

CONTRACTOR SHOULD PROVIDE TEMPERATURE INDICATOR / TEMPERATURE RECORDER FOR MEASURING TEMPERATURE DURING PRE-HEATING FOR WELDING OR FOR CONTROLLING

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-XI WELDING & RADIOGRAPHY

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TEMPERATURE OF METAL FOR HOT CORRECTION ETC. THE TEMPERATURE RECORDERS SHOULD BE PREFERABLY OF SOLID STATE TYPE.

### 11.3.3

HEAT TREATMENT MAY REQUIRE TO BE CARRIED OUT AT ANY TIME (DAY OR NIGHT) TO ENSURE THE CONTINUITY OF THE PROCESS. THE CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS INCLUDING LABOURER REQUIRED FOR THE SAME AS PER DIRECTIONS OF BHEL.

### 11.3.4

IN CERTAIN CASES ONLY THE PRE-HEATING OF WELD JOINTS MAY BE CALLED FOR.

### 11.3.5

FOR WELD JOINTS OF HEAVY STRUCTURAL SECTIONS, IF HEAT TREATMENT IS REQUIRED, THE SAME SHALL BE CARRIED OUT AS PART OF THE WORK.

### 11.3.6

CHECKING EFFECTIVENESS OF STRESS RELIEVING BY HARDNESS TESTS (BY DIGITAL HARDNESS TESTER OR OTHER APPROVED TEST METHODS AS PER BHEL ENGINEER'S INSTRUCTION) INCLUDING NECESSARY TESTING EQUIPMENTS IS WITHIN THE SCOPE OF THE WORK / SPECIFICATION.

### 11.3.7

PREHEATING, INTER-PASS HEATING, POST WELD HEATING AND STRESS RELIEVING AFTER WELDING ARE PART OF ERECTION WORK AND SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH BHEL ENGINEER'S INSTRUCTIONS. WHERE THE ELECTRIC RESISTANCE HEATING METHOD IS ADOPTED CONTRACTOR SHALL MAKE ALL ARRANGEMENT INCLUDING HEATING EQUIPMENT WITH AUTOMATIC RECORDING DEVICES, ALL HEATING ELEMENTS, THERMOCOUPLES AND ATTACHMENT UNITS, GRAPH SHEETS, THERMAL CHALKS, & INSULATING MATERIALS LIKE MINERAL WOOL, ASBESTOS CLOTH, CERAMIC BEADS, ASBESTOS ROPES ETC, REQUIRED FOR ALL HEATING AND STRESS RELIEVING WORKS.

### 11.3.8

ALL THE RECORDED GRAPHS FOR HEAT TREATMENT SHALL BE HANDED OVER TO BHEL/ IBR AUTHORITIES AND DUE CLEARANCES OBTAINED.

### 11.3.9

RESULTS OF THESE PROCESSES SHALL BE VERIFIED/ VALIDATED AS PER REQUIREMENTS OF BHEL / CLIENT.

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### 12.0 Preservation & Protection of Components

At all stages of work, equipments/materials in the custody of contractor, including those erected, will have to be preserved as per the instructions of BHEL. Necessary preservation agents including the primer & paint, for the above work shall be provided by the contractor.

#### 12.1

The contractor shall make suitable security arrangements including employment of security personnel and ensure protection of all materials/ equipment in their custody and installed equipments from theft/fire/pilferage and any other damages and losses.

#### 12.2

Contractor shall collect all scrap materials periodically from various area of work site, deposit the same at one place earmarked at work site or shift the same to a place earmarked in BHEL/ client's stores. In case of failure of contractor in compliance of this requirement, BHEL will make suitable arrangement at contractor's risk and cost.

#### 12.3

The entire surplus, damaged, unused materials, packaging materials / containers, special transporting frames, gunny bags, etc shall be returned to BHEL stores by the contractor.

#### 12.4

The contractor shall not waste any materials issued to him. In case it is observed at any stage that the wastage/excess utilization of materials is not within the permissible limits, recovery for the excess quantity used or wasted will be effected with departmental charges from the contractor. Decision of BHEL on this will be final and binding on the contractor.

#### 12.5

For any class of work for which no specifications have been laid down in these specifications, work shall be executed as per the instructions of BHEL.

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**AA) Following Clarifications issued with Tender No BHE/PW/PUR/MADT2-STR U# 3/1212 shall also form part of this specification:**

Sl. No.	Bidder's Query	BHEL's clarification
1	Bidders have represented that, Ring Beam of Bunker Shells shall be around 40 MT and hence transportation of same shall be practically impossible. They have further requested for permission of fabrication of Ring Beam for shells at site.	BHEL Clarified that fabrication of Ring Beam for Bunker Shell shall be permitted at site.
2	Bidders have asked 40,000 Sqm area (space) for Assembly of Fabricated Columns & other structural items at site.	There is space constraint at site and so much area is not feasible. However space shall be provided at site as per availability of the same.
3	Bidders have requested for furnishing the GA drawings	GA drawings are uploaded herewith as file titled 'Drawings -1340'
4	Set of 50 MT Jacks are not enough for carrying out optional shell erection by Strand Jack Method	BHEL clarified that erection of complete shell is not permitted in case of strand method is opted. One shell at a time shall be lifted and hence set of 50 T strand jack is sufficient
5	Bidders have asked about procurement of brought out item in the scope of work under this tender.	BHEL explained that procurement of brought out item may be done either by Prime Bidder or the Consortium Partner based on understanding between the two. However bill/invoice shall be raised by the prime bidder only.
6	Bidder also asked the information regarding Engineering Drawing and procedure of preparation, submission and approval of detailed fabrication drawings.	BHEL clarified that, BHEL will provide basic engineering drawing and most of the drawings have been released. Bidder has to appoint detailer with due approval from BHEL/NTPC. Detailer will prepare, submit and get approval of detailed Fabrication Drawing from BHEL Engineering Division (PEM), Noida.
7	Bidders have sought clarification wrt the invoicing pattern for Consortium, wherein Prime Bidder is outside Maharashtra agency (for E&C Portion) and Consortium Partner (for Supply portion) is Maharashtra based party.	Since the supplies shall be made from within Maharashtra, in such case, the prime bidder has to be registered under Maharashtra VAT and issue Maharashtra VAT invoice. In this case, even if the bidder's quote is inclusive of VAT or Nil VAT, they have to provide

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		Maharashtra VAT invoice showing the value of VAT separately.
8	Bidders have requested to clarify whether BHEL will evaluate the price on landed cost or on total cost including taxes as there may be additional implication on account of VAT for Maharashtra State bidder as compared to outside Maharashtra Party.	BHEL clarified that Evaluation will be on total cost basis including taxes.
9	Bunker Shell erection: Please furnish the drawings, number of pieces to be erected. This may require installation structure. Whether it is in the scope of contractor	It is in the bidder's scope. Reference GA drawing of Mill and bunker building is attached herewith file titled ' <b><u>Drawing -1340</u></b> '
10	Whether BHEL will issue PAC to the sub-vendors of the contractor as well ?	No, BHEL shall not issue PAC to the sub-vendors of the contractor.
11	Confirm whether all materials of Grade E 250 and monopoly materials such as WPB are not part of supplies.	Material type is as per technical specification. Refer clause no. 3.02.01 & 3.02.02 of volume 2B section C. Relevant Page of the document is also attached herewith.
12	Furnish the approved vendor list for supply	Approved vendor list is indicated at BB below
13	Furnish the Conveyor layout drawings, clearly mentioning height.	Conveyor drawing is under engineering stage. However the conveyor clear height from the ground ranges from EI(+) 53.0 m to EI(+) 70.0 m.
14	We assume that we will be sending transportable length structures and power for assembling fabrication will be free of cost.	As per tender conditions, fabrication shall be done at vendor works outside the project premise. For this all the required facilities shall be arranged by bidder at their own. Bidder has to supply finished product at site as per tender conditions. For pre assembly and erection of finished product at site, as per specified tender condition construction power shall be provided by BHEL free of charges. (Refer S No. 3.2.0 of Chapter III of Volume IA TCC).
15	Confirm that scrap if any generated at site for our supplies, will be property of ours and we will be allowed to take it back.	Finished product once supplied by the bidder at site shall be the property of BHEL. Therefore question of generating scrap does not arise. However any minor scrap from these materials generated during final erection as per drawing shall not be

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		allowed to take it back.
16	Furnish the data sheet for PTFE type sliding bearing mentioning max sliding movement, maximum horizontal force, maximum vertical load etc	PTFE type bearing is under engineering stage. PTFE data sheet shall be provided during detailed engineering.
17	Whether power and land for labour colony is available on chargeable basis, if yes what are the charges?	Land and power for labour colony shall be arranged by the bidder on their own. (Refer Chapter III of Vol IA TCC of tender documents).
18	Price Variation Clause (PVC) may be put in the tender.	Tender conditions shall remain unchanged. PVC shall not be applicable
19	In case supply schedule gets extended beyond 15 months for non-fault of vendor, PVC may be allowed.	Tender conditions shall remain unchanged. PVC shall not be applicable
20	The tender has practical supply schedule of 12 months with peak production of 1200 – 1500 MT, which may require 3000 MT material in stock. Please keep advance (on material at least 10 %)	Tender conditions shall remain unchanged.
21	Interest free advance for steel supply may be considered.	Tender conditions shall remain unchanged.

**BB) Approved Vendor List**

**Plates & Sheets:**

<b>Sr No</b>	<b>Supplier</b>	<b>Location</b>
1	STEEL AUTHORITY OF INDIA LTD(Bokaro)	Bokaro
2	STEEL AUTHORITY OF INDIA LTD(Bhilai)	Bhilai
3	UTTAM VALUE STEELS LTD	Wardha
4	JINDAL STEEL & POWER LIMITED,	Raigarh
5	ESSAR STEEL LIMITED,	Hazira
6	JSW STEEL LTD.,	Bellary
7	JINDAL STEEL & POWER LIMITED,	Angul

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**Structurals:**

<b>Sr No</b>	<b>Supplier</b>	<b>Location</b>
1	NANDAN STEELS & POWER LTD.,	Raipur
2	STEEL AUTHORITY OF INDIA LTD(Durgapur)	Dugapur
3	STEEL AUTHORITY OF INDIA LTD(Bhilai)	Bhiali
4	STEEL AUTHORITY OF INDIA LTD(Rourkela)	Rourkela
5	JINDAL STEEL & POWER LIMITED,	Raigarh
6	RELIABLE SPONGE PVT.LTD.,	Bhuvaneshwar
8	TOPWORTH STEEL AND POWER PVT.LTD.,	Durg
9	UNITED METAL INDUSTRIES,	Chennai
10	KANISHK STEEL INDUSTRIES Ltd.,	Chennai
11	Shri Bajrang Alloys Ltd,	Raipur
12	SUJANA METAL PRODUCTS LTD,	Vizag
13	NOBLE TECH INDUSTRIES PVT. LIMITED,	Chennai
14	KL STEEL PVT LTD, GHAZIABAD	Ghaziabad
15	BEEKAY STRUCTURAL STEELS.,	Vizag
16	RASHTRIYA ISPAT NIGAM LIMITED	Vizag
18	PRIME ISPAT LIMITED,	Raipur
19	Khyati Ispat Ltd	Raipur

**CC) Clarification to PQR B.1 a**

In case any bidder (say XYZ), has two manufacturing Units registered in the same name of XYZ, though with different Excise Registration in different States, their combined credentials shall be considered for PQR evaluation