

TENDER SPECIFICATION No.

BHE/PW/PUR/KRSR-ESP-Dismantling/1464

FOR

Dismantling of Complete Existing ESP & Bag filters, ID Fan, PA Fan & SA Fan (Including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.) for Clearance of new foundation, Transportation of the same to scrap yard for the work of Main Plant Package of Energy Efficient Renovation & Modernization (EE R&M), UNIT # 6 (210 MW) of Koradi Thermal Power Station, MSPGCL

AT

KORADI TPS

Dist.: NAGPUR, MAHARASHTRA

VOLUME –I

TECHNO-COMMERCIAL BID

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



BHARAT HEAVY ELECTRICALS LIMITED

(A Government of India Undertaking)

Power Sector – Western Region

345, Kingsway, Shreemohini complex, 6th floor -Nagpur- 440 001

Bharat Heavy Electricals Limited: PSWR: Nagpur

Tender Specs. No. BHE/PW/PUR/KRSR-ESP-Dismantling/1464

CONTENTS		
Volume No	Description	Files titled
NIL	Tender Specification Issue Details	(Part of Vol-IA-1464)
NIL	Notice Inviting Tender	(Part of Vol-IA-1464)
I-A	Technical Conditions of Contract	Vol-IA-1464
I-B	Special Conditions of Contract	Vol-IBCD-1464
I-C	General Conditions of Contract	(Part of Vol-IBCD-1464)
I-D	Forms & Procedures	(Part of Vol-IBCD-1464)
II	Price Bid Specification	Vol-II-1464
-	HSE PLAN	(Part of Vol-IBCD-1464)

NOTICE INVITING TENDER (NIT)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)
POWER SECTOR - WESTERN REGION
345, KINGS WAY - NAGPUR 440 001

TENDER SPECIFICATION NO –

BHE/PW/PUR/KRSR-ESP-Dismantling/1464

ISSUE DETAILS

NAME OF THE WORK:

Dismantling of Complete Existing ESP & Bag filters, ID Fan, PA Fan & SA Fan (Including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.) for Clearance of new foundation, Transportation of the same to scrap yard for the work of Main Plant Package of Energy Efficient Renovation & Modernization (EE R&M), UNIT # 6 (210 MW) of Koradi Thermal Power Station, MSPGCL AT KORADI TPS Dist.: NAGPUR, MAHARASHTRA

LAST DATE & TIME FOR SUBMISSION OF COMPLETED OFFERS: PLEASE OBTAIN THE LATEST DETAILS FROM OUR WEB PAGE <http://www.bhel.com> (Tender Notifications, → View Corrigendum's)

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

M/s.....

.....

.....

(THESE TENDER SPECIFICATION DOCUMENTS ARE NOT TRANSFERABLE)

FOR BHARAT HEAVY ELECTRICALS LIMITED

Addl General Manager (Purchase)

PLACE: NAGPUR

DATE :

NOTICE INVITING TENDER (NIT)

NOTICE INVITING TENDER (NIT)

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	TENDER NUMBER	BHE/PW/PUR/KRSR-ESP-Dismantling/1464
ii	Broad Scope of job	Dismantling of Complete Existing ESP & Bag filters, ID Fan, PA Fan & SA Fan (Including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.) for Clearance of new foundation, Transportation of the same to scrap yard for the work of Main Plant Package of Energy Efficient Renovation & Modernization (EE R&M), UNIT # 6 (210 MW) of Koradi Thermal Power Station, MSPGCL at Koradi TPS, Nagpur (MH)
iii	DETAILS OF TENDER DOCUMENT	
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> Applicable
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> Applicable
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> Applicable
d	Volume-ID	<i>Forms and Procedures</i> Applicable
e	Volume-II	<i>Price Schedule (Absolute value).</i> Applicable
iv	Issue of Tender Documents	1. <u>Sale from BHEL PS Regional office at:</u> Start : 29/05/2015 Closes: 12/06/2015 Time :15.00 Hrs 2. From BHEL website (www.BHEL.com) Tender documents can however be downloaded from website till due date of submission Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	Date : 12 /06/ 2015 , Time :15.00Hrs Place : Nagpur HQ Applicable
vi	OPENING OF TENDER	1 hours after the latest due date and time of Offer submission <i>Notes:</i> <i>(1) In case the due date of opening of tender becomes a non-working day, tenders shall be opened on next working day at the same time.</i> <i>(2) Bidder may depute representative to witness the opening of tender</i> Applicable

NOTICE INVITING TENDER (NIT)

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	Date: Atleast 3 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)	Date : Not applicable.	Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	Not Applicable	Not 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 (www.BHEL.com -->Tender Notifications →View Corrigendums) and not in the newspapers . Bidders to keep themselves updated with all such information	

- 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:
- VOL-I consisting of 'VOL-I A (Techno Commercial Bid)'& 'VOL-I B (EMD/COST of TENDER)' in two separate sealed and superscripted envelopes (ENVELOPE-I & ENVELOPE-II)
 - VOL-II (Price Bid) – in sealed and super scribed envelope (ENVELOPE-III)
- 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
	VOL-I A	
	ENVELOPE – I superscribed as : PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT:	

NOTICE INVITING TENDER (NIT)

	DUE DATE OF SUBMISSION: CONTAINING THE FOLLOWING:-	
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. Note: 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	
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 : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	
ix.	Volume – I A : <u>Technical</u> Specification of crane	
x.	Volume – I B : Special Conditions of Contract (SCC)	
xi.	Volume – I C : General Conditions of Contract (GCC)	
xii.	Volume – I D : Forms & Procedures	
xiii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiv.	Any other details preferred by bidder with proper indexing.	

	VOL-I B	
	ENVELOPE – II superscribed as: PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION: CONTAINING THE FOLLOWING:-	
i.	1. Earnest Money Deposit (EMD) in the form as indicated in this Tender OR Documentary evidence for 'One Time EMD' with the Power Sector Region	

NOTICE INVITING TENDER (NIT)

	of BHEL floating the Tender	
	2. Cost of Tender (Demand Draft or copy of Cash Receipt as the case may be)	

VOL-II		
	PRICE BID consisting of the following shall be enclosed	
	ENVELOPE-III superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING	
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)	

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

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 No Deviation with respect to tender clauses and no additional clauses/ suggestions/ in Techno-commercial bid/ Price bid shall normally 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~~
- 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 etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding

NOTICE INVITING TENDER (NIT)

scope of work, facilities available at sites or on terms and conditions. No additional claim shall be entertained by BHEL in future, on account of non-acquaintance of above.

- 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 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 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 (xi) of 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) or specified otherwise in SCC of tender.
- 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.
- 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

NOTICE INVITING TENDER (NIT)

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 In case Consortium Bidding is allowed as per Pre Qualifying Requirement, then Prime Bidder and Consortium Partner shall enter into Consortium Agreement. Validity period of Consortium Agreement shall be 6 months after which the same can be re validated.
'Stand alone' bidder cannot become a **'prime bidder' or a 'consortium bidder' in a consortium 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
- 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 BHEL reserves the right to reject any tender on the basis of unsatisfactory performance of the bidder in any ongoing job or any similar job in the last seven years or for furnishing false information/declaration in the offer.
- 27.0 **Liquidated Damages/Penalty:** BHEL will impose Liquidated Damages and Penalty as per suitable clauses in the respective Tender Specifications on account of delay, violation of contract conditions and non-performance attributable to the contractor.
- 28.0 **LATE TENDER:** Tender received after the specified date and time of submission shall not be considered in any circumstances.
- 29.0 A bidder must satisfy **all the Qualifying Requirements** stipulated under 'C', 'D' etc of this tender concurrently in order to get qualified.
- 30.0 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

for BHARAT HEAVY ELECTRICALS LTD
AGM / Purchase

Enclosure.

01. Annexure-1: Pre Qualifying criteria.
02. Annexure-2: Check List.
03. Annexure-2: Important Information.

NOTICE INVITING TENDER (NIT)

ANNEXURE - I

PRE QUALIFYING REQUIREMENTS

JOB	Dismantling of Complete Existing ESP & Bag filters, ID Fan, PA Fan & SA Fan (Including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.) for Clearance of new foundation, Transportation of the same to scrap yard for the work of Main Plant Package of Energy Efficient Renovation & Modernization (EE R&M), UNIT # 6 (210 MW) of Koradi Thermal Power Station, MSPGCL at Koradi TPS, Nagpur (MH)
TENDER NO	BHE/PW/PUR/KRSR-ESP-Dismantling/1464

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document. (Bidder must fill up this column as per applicability)
A	Submission of Integrity Pact duly signed (if applicable)	NOT APPLICABLE	
B	<p><u>TECHNICAL CRITERIA</u> Bidders shall essentially meet all the Qualifying Requirements (i.e. B.1) as under.</p> <p>B.1: Bidder Must have executed mechanical erection/erection & commissioning/dismantling job in Power Plant of any rating or in Refinery Projects in last seven years as on the latest date of offer Submission as below:-</p> <p>B.1.1) Executed One work of value not less than Rs. 100 Lakhs against single work order. OR</p> <p>B.1.2) Executed Two works each of value not less than Rs. 63 Lakhs against maximum two work orders. OR</p> <p>B.1.3) Executed Three works each of value not less than Rs. 50 Lakhs against maximum three work orders.</p>	APPLICABLE	
C-1	<p><u>FINANCIAL TURNOVER criteria</u> Bidders must have achieved an average annual financial turnover (audited) of Rs 38 Lakhs or more over last three Financial Years (FY) i.e. 2012-2013, 2013-14, 2014-15 OR 2011-2012, 2012-2013, 2013-14 if Annual Accounts for FY 2014-15 are not audited.</p>	APPLICABLE	
C-2	<p><u>NETWORTH (only in case of Companies)</u> Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive</p>	APPLICABLE	
C-3	<p><u>PROFIT</u> Bidder must have earned cash profit in any one of the three</p>	APPLICABLE	

NOTICE INVITING TENDER (NIT)

	Financial Years as applicable in the last three Financial Years defined in 'C-1 above based on latest Audited Accounts.		
D	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT	NOT APPLICABLE	BY BHEL
E	Approval of Customer	NOT APPLICABLE	BY BHEL
F	Consortium criteria	NOT APPLICABLE	BY BHEL
G	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E	APPLICABLE	BY BHEL
<p><u>Explanatory Notes for QR</u></p> <ol style="list-style-type: none"> 1. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above along with all annexures 2. In case audited Financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i. e. total divided by three. 3. 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) 4. 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 5. 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 6. '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 7. 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 up to two months prior to bid opening month. 			

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

NOTICE INVITING TENDER (NIT)

Bidder's Response to BHEL TECHNICAL PQR (WHICHEVER IS APPLICABLE)				
PQR No	Pre-Qualifying Requirement	Credentials (Detailed Work Order, Completion Certificate, TDS Certificates etc) based on which bidder is claiming PQR	Reference of the documents	Page No
B.1:	Bidder must have executed mechanical erection/dismantling job in Power Plant of any rating or in Refinery Projects as below:			
B.1.1	Executed One work of value not less than Rs. 100 Lakhs against single work order			
B.1.2	Executed Two works each of value not less than Rs. 63 Lakhs against maximum two work orders			
B.1.3	Executed Three works each of value not less than Rs. 50 Lakhs against maximum three work orders			
C1	Bidders must have achieved an average annual financial turnover (audited) of Rs 38 Lakhs or more over last three Financial Years (FY) i.e. 2012-2013, 2013-14, 2014-15 OR 2011-2012, 2012-2013, 2013-14 if Annual Accounts for FY 2014-15 are not audited.	Turnover for 2011-12 (in lakhs): Turnover for 2012-13 (in lakhs): Turnover for 2013-14(in lakhs): Average of 03 years (in lakhs):		
C2	Net worth (<i>only in case of Companies</i>) of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive	Net worth as per latest audited accounts is <input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> NA		
C3	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.	Cash Profit as per audited accounts is positive for <input type="checkbox"/> 2011-12 <input type="checkbox"/> 2012-13 <input type="checkbox"/> 2013-14 <input type="checkbox"/> Not positive in any financial year		
<ul style="list-style-type: none"> NOTE: BIDDERS MUST CLEARLY INDICATE IN THE TABLE ABOVE, HOW THEY ARE SATISFYING TECHNICAL PQR ALONG WITH THE REFERENCE OF THE SUPPORTING DOCUMENTS AND THE PAGE NUMBER IN WHICH THE REFERRED DOCUMENTS ARE ANNEXED IN THE BID DOCUMENT. BHEL WILL NOT CONSIDER ANY OTHER DOCUMENT OTHER THAN THOSE SPECIFIED BY THE BIDDERS IN THE TABLE ABOVE FOR EVALUATION OF TECHNICAL PQR. BIDDER MAY ATTACH SEPERATE SHEET IF NECESSARY 				

Bharat Heavy Electricals Limited: PSWR: Nagpur
Tender Specs. No. BHE/PW/PUR/KRSR-ESP-Dismantling/1464

NOTICE INVITING TENDER (NIT)

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	Details of Contact person for this Tender (<i>Please fill the contact details of the person responsible for the tender so that he/she can be contacted directly regarding any clarifications</i>)	Name : Mr/Ms Designation: Tel No: Mobile No: Email –Id:-	
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	As per NIT	
		APPLICABILITY	BIDDER REPLY
6	Whether the format for compliance with PRE QUALIFICATION CRITERIA (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	YES/NO
8	Copy of PAN Card	Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable	YES/NO
10	Integrity Pact	Applicable	YES/NO
11	Declaration by Authorised Signatory	Applicable	YES/NO
12	No Deviation Certificate	Applicable	YES/NO
13	Declaration confirming knowledge about Site Conditions	Applicable	YES/NO
14	Declaration for relation in BHEL	Applicable	YES/NO
15	Non-Disclosure Certificate	Applicable	YES/NO
16	Bank Account Details for E-Payment	Applicable	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Applicable	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	Applicable	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable	YES/NO
20	Analysis of Unit rates	Applicable	YES/NO

NOTE : STRIKE OFF 'YES' OR 'NO', AS APPLICABLE

DATE :

AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

Bharat Heavy Electricals Limited: PSWR: Nagpur
Tender Specs. No. **BHE/PW/PUR/KRSR-ESP-Dismantling/1464**

NOTICE INVITING TENDER (NIT)

ANNEXURE 3:

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 ---> Tender Notification -> List of Banned Firms)
2. Refer Chapter XII of Volume IB Special Conditions of Contract regarding Suspension of Business Dealings: The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' has now been uploaded on www.bhel.com on "supplier registration page" at the following link:
http://www.bhel.com/vender_registration/pdf/Suspension-of-Business-Dealings-with-Supplier-issued-Sept13_abridged.pdf
3. All Statutory Requirements as applicable for this project shall be complied with.
4. Please take note of following Revised Tender Clauses:
 - a) General conditions of Contract: Clause No 1.15.13 (New), Clause No 2.8.3, 2.8.4 and 2.8.5
5. **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 are given in Annexure V of NIT:

- 5.1. 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).
- 5.2. 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.

NOTICE INVITING TENDER (NIT)

- 5.3. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- 5.4. 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.
- 5.5. 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.
- 5.6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
- 5.7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
- 5.8. 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.
- 5.9. 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 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.
- 5.10. Reverse auction will be conducted on scheduled date & time.
- 5.11. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
- 5.12. 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.
- 5.13. 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.
- 5.14. 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.
- 5.15. 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.
- 5.16. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- 5.17. 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.

6. The following clauses shall not be applicable for this tender:-

- a) Clause no.9 "Assessment of Capacity of Bidders" of NIT in this Vol-I-A-Tech Bid.
- b) Clause no.2.17 "Price Variation Compensation" of Vol-I-C-GCC (General Conditions of Contract) of document Vol-I-BCD.
- c) Clause no.2.12 "Over Run Compensation" of Vol-I-C-GCC (General Conditions of Contract) of document Vol-I-BCD.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

CONTENTS

SI no	DESCRIPTION	Chapter	No. of Pages
Vol I A	Part-I: Contract specific details		
1	Project Information	Chapter-I	01
2	Scope of works	Chapter-II	05
3	Facilities in the scope of Contractor / BHEL (Scope Matrix)	Chapter-III	04
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV	01
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V	01
6	Time Schedule	Chapter-VI	04
7	Terms of Payment	Chapter-VII	02
8	Taxes and other Duties	Chapter-VIII	02
9	Weight schedule	Chapter-IX	03
10	General	Chapter-X	04
11	Progress of work	Chapter-XI	02

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER – I

PROJECT INFORMATION

1. Purchaser / Owner : **MSPGCL**

2. Project Title : Koradi Thermal Power Station, Unit # 6(210 MW)

LOCATION AND APPROACH :

1. Location : KORADI, DIST. : NAGPUR, MAHARASHTRA (INDIA)

2. Nearest City : The site is about 14 Km from Nagpur city.

3. Nearest Air Port : Nagpur

4. Railway Approach : Nearest Railway Station : Nagpur

The Bidder shall visit site and get acquainted himself with the conditions prevailing at site before submission of the bid. The information's given here in under are for general guidance and shall not be contractually binding on BHEL/ Owner. All relevant site data's/information's as may be necessary shall have to be obtained /collected by the Bidder.

VOLUME-IA PART – I CHAPTER – II

Bharat Heavy Electricals Limited: PSWR: Nagpur
Tender Specs. No. **BHE/PW/PUR/KRSR-ESP-Dismantling/1464**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

SCOPE OF WORKS

1.0 INTRODUCTION

Unit # 6 of Koradi Thermal Power Station is a 210 MW Unit commissioned in 1982. The Boiler is of BHEL design.

The Electrostatic Precipitator originally supplied by BHEL is of size 2xFAA-5x36-2x9590-2 and is of four passes. Later two passes of ESP were retrofitted with Bag Filters. Now, as required by MAHAGENCO, the existing ESP and Bag filter is proposed to be replaced with new ESP of new state of art technology.

As per the proposal, the existing bag filters / ESPs are to be dismantled completely. Then the new ESP with new foundation / supporting structure is to be erected during the shutdown of the unit.

2.0 This tender is for Unit# 6 (210 MW) sets. Dismantling of Complete Existing ESP & Bag filters, ID FAN (2 NOS) PA FAN (2 NOS) & SA FAN (2 NOS) including Insulation, Cladding, pipe, cable, cable tray and electrical items etc. for Clearance of new foundation, Transportation of the same to scrap yard.

The scope of dismantling work for ESP and other components per boiler is limited to as follows.

PKG-1 (DISMANTLING)		
S No	ACTIVITY	Approx. Weight
1.1	ESP	
	Dismantling of Complete Existing ESP & Bag filters (including insulation, cladding, pipe, cable, cable tray and electrical items etc. except foundation) for Clearance of new foundation.	3041 MT
	Transportation of the same to scrap yard	
1.3	FANS	
	Dismantling of ID Fan-2 Nos, PA Fan-2 Nos & SA Fan-2Nos (including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.) for Clearance of new foundation.	181 MT
	Transportation of the same to scrap yard	

3.0 Detail scope for Dismantling of ESP in Unit # 6 (210 MW)

The following activities for ESP are based on the tender specification.

3.1 Mechanical Dismantling work:

1. Supporting structure consisting of columns cross ties, foot plates.
2. Slide supports to take care of casing thermal expansions.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

3. ESP casings consisting of prefabricated wall and roof-panels fabricated steel plate of adequate thickness reinforced with vertical columns and intermediate stiffeners to withstand the negative pressure and earthquake. The casing is provided with access doors.
4. ESP outer roof fabricated from chequered plate of adequate thickness forming an inspection floor on top of ESP casing.
5. Insulators - each set consisting of four support insulators per bus of the field, one shaft insulator for each emitting rapping mechanism and one bushing insulator for direct connecting to the transformer/rectifier.
6. Oil pan for TR set at roof.
7. Insulator housings complete with HT ducting for connecting transformer. The insulator compartments are of double walled construction with thermal insulation and are provided with access doors for inspection / service of support insulators.
8. Emitting system consisting of frame work supported from support insulators, emitting electrodes and rapping mechanism including rapping shafts, shaft insulators, angularly displaced tumbling hammers, drive arrangements and geared motor.
9. Bag filters
10. Collecting electrode system consisting of supporting arrangement, collecting electrodes fabricated from roll-formed sheets of steel, rapping mechanism including shock bar, rapping shafts, angularly displaced tumbling hammers, drive arrangement and geared motor.
11. Pyramidal ash collection hoppers fabricated from steel plate of adequate thickness, complete with SS lining, high level ash level indicators, thermostatically controlled heating elements and walkways beneath the hopper
12. Inlet and outlet funnels of steel plate of adequate thickness reinforced with beams and stiffeners and complete with splitters, guide vanes etc.
13. Gas distribution screens consisting of three perforated screen (primary, secondary & inlet funnel screens) at the inlet and a single plain screen arrangement at the outlet for each casing. Out of these the primary & secondary screens are provided with rapping system.
14. Thermal insulation for the precipitator walls, roof panels, hoppers and connecting funnels with cladding material and other fixing materials like studs, retainers, etc.
15. Gas screening plates for casing and hoppers Access doors for casing & hoppers
16. Stairs and walkways for the precipitator.
17. Water washing system consisting of pipes, valves and hoses.
18. Ducting, starting from air heater outlet duct to ID fan inlet duct including ESP.

3.2 Electrical Dismantling Works:

1. Transformer rectifier units with associated control cubicles.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

2. Electrically operated lifting and handling arrangement (of capacity 3MT) for the transformer rectifier sets mounted on the precipitator roof.
3. High voltage bus duct connections between the transformer rectifier and the high voltage emitting system complete with bushing insulator and disconnecting switches.
4. Mechanical Interlock system consisting of key exchange boxes and interlocks

3.3 INSULATION & CLADDING:

100 % Insulation and cladding will have to be removed.

3.4 Miscellaneous works:

Miscellaneous works like ducts, pipes will have to be dismantled during shutdown period for facilitating the work. Such works have to be carried out under supervisions and guidance of customer and BHEL.

4.0 T&P, cranes, tools etc.

All the tools tackles, Cranes (except those being provided by BHEL), Derricks arrangements (Structural material for fabrication of Derik will be provided by BHEL on returnable basis) required for satisfactory and safe execution of work to be arranged by contractor at his cost. The quoted rate includes entire completion of work including arrangements for labor colony for their workers stay & their transportation.

Due to confined space, there may be most of the areas being non-approachable by crane. Agency has to use improvised methods for dismantling to complete the work. These methods may include tying of ropes through existing structures /equipment such as chimney, conveyor structure and other available structures etc. At some locations, such structures are not available and crane also cannot approach, in such cases, derrick arrangement to be made for dismantling.

Bidders are strongly advised to visit the site along with BHEL officials to assess the possibility of using alternate arrangements apart from crane. No separate payment shall be made for any such arrangements used during the execution of the contract. All safety precautions have to be taken for such alternate arrangements and no damage should be caused to the existing equipment, structure, customer property etc.

All the above activities included in the quoted rate. No separate amount will be paid for any work. Any miscellaneous works arises for satisfactorily completion of work to be carried out by bidder without any extra amount.

4.1 SPECIAL NOTES:

4.1.1. Fuel for operation of the BHEL Cranes including loading, unloading, shifting, and assembly, dissembling arrangement to be provided by Bidder.

4.1.2. Bidders are strongly advised to visit the site to acquaint themselves with the working conditions and the project requirements for execution of the job.

4.1.3. PENALTY / LIQUIDATE DAMAGE:

Penalty / Liquidate Damage shall be applicable for delay in completion of works as per BHEL RM recommendations.

Note:

FOR FURTHER DETAILED SCOPE OF WORKS REFER RELEVANT CHAPTERS IN THIS BOOK

VOLUME-IA PART – I CHAPTER – III

Bharat Heavy Electricals Limited: PSWR: Nagpur
Tender Specs. No. BHE/PW/PUR/KRSR-ESP-Dismantling/1464

TECHNICAL CONDITIONS OF CONTRACT (TCC)

4.2 FACILITIES IN THE SCOPE OF CONTRACTOR / BHEL

(SCOPE MATRIX)

SI.No	Description	Scope to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
1.1	ESTABLISHMENT			
1.1.1	FOR CONSTRUCTION PURPOSE:			
A	Open space for office	Yes		
B	Open space for storage	Yes		
C	Construction of bidder's office		Yes	
D	Fire fighting equipments like buckets, extinguishers etc		Yes	
E	Living accommodation		Yes	
1.2	ELECTRICITY FOR CONSTRUCTION POWER			
1.2.1	Electricity For this purposes (to be specified whether chargeable or free)			
1.2.2	Single point source	Yes		Free for this purpose. Chargeable for labor colony etc
1.2.3	Further distribution for the work to be done which include supply of materials and execution		Yes	
1.2.4	Electricity for the office, stores, canteen etc of the bidder which include:		Yes	
1.2.5	Distribution from single point including supply of materials and service		Yes	
1.2.6	Supply, installation and connection of material of energy meter including operation and maintenance		Yes	
1.2.7	Duties and deposits including statutory clearances for the above		Yes	
1.2.8	Living facilities for office use including charges		Yes	
1.2.9	Demobilization of the facilities after completion of works		Yes	
1.2.10	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc on the above lines.(in case BHEL provides this facility, the scope should be given without ambiguity)		Yes	
1.3	WATER SUPPLY			

TECHNICAL CONDITIONS OF CONTRACT (TCC)

SI.No	Description	Scope to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
	For construction purposes:			
1.3.1	Making the water available at single point	YES		
1.3.2	Further distribution as per the requirement of work including supply of materials and execution		Yes	
1.3.3	Water supply for bidder's office, stores, canteen etc			
1.4	LIGHTING			
1.4.1	For construction work (supply of all the necessary materials) At office storage area At the construction site /area		Yes	
1.4.2	For construction work (Execution of the lighting work / arrangements) At office storage area At the construction site /area		Yes	

OPEN SPACE

Open space for building of temporary office shed, contractor's stores shed(s) will be provided free of hire charges. Contractor has to make his own arrangements for labor colony.

ELECTRICITY:

The contractor shall be provided with free supply of Electricity for the purpose of execution of work at single point only at work site. For further distribution contractor shall make his own arrangements. Electricity for all other services if required will be provided on **chargeable basis** as per norms.

- a) Consumption charges as per norms
- b) Any dispute regarding consumption, BHEL engineer's decision is final.

Any duty, deposit involved in getting the Electricity shall be borne by the bidder. As regards contractor's office shed also all such expenditure shall be borne by the contractor.

Provision of distribution of electrical power from the given single central common point to the required places with proper distribution boards, approved cables and cable laying including supply of all materials like cables, switch boards, pipes etc., observing the safety rules laid down by electrical authority of the State / BHEL / their customer with appropriate statutory requirements shall be the responsibility of the tendered / contractor.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHEL is not responsible for any loss or damage to the contractor's equipment as a result of variations in voltage / frequency or interruptions in power supply.

WATER:

Contractor has to make his own arrangements for his water requirement for Construction purpose and his labor colony.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER – IV

4.3 T&PS and MMEs TO BE DEPLOYED BY CONTRACTOR

The following minimum major Tools & Plants shall be deployed by the contractor:

SI. No	DESCRIPTION OF EQUIPMENT	CAPACITY	MINIMUM QUANTITY	REMARKS
01	PICK AND CARRY CRANE	14 T/12 T	As required	TO BE DEPLOYED FROM BEGINNING FOR START OF DISMANTLING TILL COMPLETION
02	3 ph DISTRIBUTION BOARD WITH COMPLETE SET UP FOR DRAWING CONSTRUCTION POWER, FITTED WITH ENERGY METER	AS Required	As required	AS REQUIRED AND AS PER INSTRUCTION OF BHEL ENGINEER
03	ELECTRIC WINCH	AS Required	As required	AS REQUIRED AND AS PER INSTRUCTION OF BHEL ENGINEER
04	ELECTRIC CABLE FOR DRAWAL & DISTRIBUTION OF CONSTRUCTION POWER	AS REQUIRED	AS REQUIRED	TO BE DEPLOYED FROM BEGINNING OF START
05	TRAILER WITH PRIME MOVER	ADEQUATE CAPACITY	AS REQUIRED	WHILE FURNISHING THE DEPLOYMENT PLANS FOR THESE ITEMS, THE NEED FOR TRANSPORT OF MATERIAL. VEHICLES DEPLOYED SHOULD HAVE VALID STATUTORY DOCUMENTS AT ALL TIMES
06	TRUCK	9 MT	1 NO	AS REQUIRED
07	SLINGS, 'D'-SHACKLES, HYDRAULIC JACKS, ETC.	AS REQUIRED	AS REQUIRED	WITH TEST REPORTS

The above list is tentative. The contractor has to provide required type and capacity of T&P, cranes/lifting tools for satisfactory completion of work.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER – V

5.0 T&Ps AND MMEs TO BE DEPLOYED BY BHEL ON SHARING BASIS

List of T&P's to be made available by BHEL to contractor free of hire charges on sharable basis.

5.1	Tower Crane/Tyre Mounted Telescopic Crane along with Luffing Fly Jib	Tower Cr-12 T OR Tyre Mounted Crane-300 T	AS REQUIRED	IT MAY BE USED ON REQUIREMENT BASE
-----	--	---	-------------	------------------------------------

NOTE:

1. All the T&Ps required for this scope of work, except the T&Ps provided by BHEL are to be arranged by the contractor within the quoted rates.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER-VI

TIME SCHEDULE

6.0 TIME SCHEDULE

PKG-1 (DISMANTLING)		
S No	ACTIVITY	Duration (days)
1.1	ESP	
	Dismantling of Complete Existing ESP & Bag filters including insulation, cladding, pipe, cable, cable tray and electrical items etc. for Clearance of new foundation.	30
	Transportation of the same to scrap yard	15
1.3	FANS, GATE AND DAMPER	
	Dismantling of ID FAN-2 NOS & PA FAN-2 NOS including Insulation, Cladding, pipe, cable, cable tray and electrical items etc. for Clearance of new foundation	20
	Transportation of the same to scrap yard	10

6.1 The entire work of Dismantling of Complete Existing ESP & Bag filters, ID FAN (2 NOS) PA FAN (2 NOS) & SA Fan (2 Nos) including Gate, Damper Insulation, Cladding, pipe, cable, cable tray and electrical items etc. for Clearance of new foundation for Unit-6 of 210 MW at MSPGCL -Koradi Thermal Power Station-Koradi, Maharashtra as detailed in the Tender Specification shall be completed within 2 (**Two**) months from the date of commencement of work at site.

6.2 During the total period of contract, the contractor has to carry out the activities in a phased manner as required by BHEL and the program of milestone events.

6.3 The work shall be commenced on the mutually agreed date between the bidder and BHEL engineer. The decision of BHEL in this regard shall be final and binding of the contractor. The scope of work under this contract is deemed to be completed only when so certified by the site Engineer.

6.2 COMMENCEMENT OF CONTRACT PERIOD

The date of commencement of contract period shall be the mutually agreed date between the bidder and BHEL engineer to start the work. In case of discrepancy the decision of BHEL engineer is final.

6.3 MOBILISATION

The activities for dismantling shall be started as per directions of BHEL Engineer. The contractor has to augment his resources in such a manner that following major milestones are achieved on specified schedules:

Expected dismantling start for work: **20 June '2015**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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.

In case any requirement is there to compress the schedule of activities to achieve project completion, then the additional expenses if any incurred will be discussed mutually and settled. BHEL decision in this regard is final and the issue is not arbitral.

6.4 CONTRACT PERIOD

The contract period for completion of entire work shall be 2 **(Two) months** from the "COMMENCEMENT OF CONTRACT PERIOD" as specified earlier.

6.5 METHOD STATEMENT FOR ESP DISMANTLING WORK

TECHNICAL CONDITIONS OF CONTRACT (TCC)

As per the proposal, the existing bag filters / ESPs, ID Fan, PA Fan Including 100% insulation works are to be dismantled completely.

Sl.No	Activity Description	Method Statement	T&P and others Input Required
1	Pre shutdown works		
1.1	Site Mobilization		
1.2	Establishment of vendor office, arrangement for labor accommodation.	To prepare office and Labor colony, Obtaining labor license, insurance, PF accounts and Gate pass etc.	Open area space with facility of approach, drinking water, and power supply.
1.10	Provision of Scaffolding	Well IN advance before shut down scaffolding provision all around ESP and Duct area (Air heater outlet duct to ID fan inlet duct)	Scaffolding Materials
1.11	Mobilization and installation of crane.	Mounting arrangement as suited Tower crane/ Tire mounted telescopic crane along with luffing jib	Required 100 T tire mounted crane for pre-assembly of tower crane.
2	Unit Shutdown Work		
2.1	ESP Dismantling Work – (Worked shall be done rounds o' clock)		
	Activity Description	Method Statement	T&P and others Input Required
2.1.1	Dismantling of all cables.	All cables come from LTMSB bus section and all cables to ACP incomer and all outgoing cable shall be removed and terminate. Cable from EC panel and to ESP area is also to be removed.	
2.1.2	Dismantling of the Insulation & cladding.	Removal of the Insulation & cladding for duct from APH outlet duct to ID fan inlet duct including ESP & hoppers.	Scaffolding approach
2.1.3	Dismantling of the Roof mounted electrical items.	Dismantling of the Roof mounted electrical items like TR sets, rectifier handling, insulator housing, disconnecting switch, gear motor, interlock, Cables etc.	Tower crane/ Tire mounted telescopic crane and other crane.
2.1.4	Dismantling of the existing complete roof	Dismantling of the existing complete roof With help of tower crane and the other side crane .Work of dismantling to be parallel from the four corners.	Tower crane/ Tire mounted telescopic crane and other crane.
2.1.5	Dismantling of the Inlet / outlet funnel, roof beam, roof panel.	Dismantling of the Inlet / outlet funnel, roof beam, roof panel With help of winches	Winch (5/10 T)-10 Nos required

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Sl.No	Activity Description	Method Statement	T&P and others Input Required
		(5/10 T), crane .Work to be parallel from the four corners.	
2.1.6	Dismantling the existing complete internals.	Dismantling as Bag filters, collecting electrode, emitting electrode, emitting frame, collecting system, rapping mechanism. With help of tower crane/derricks arrangements and the other side crane .Work to be parallel from the four corners.	Tower crane/ Tire mounted telescopic crane and other crane.
2.1.7	Complete dismantling of existing ESPs	Complete dismantling of existing ESPs with help of tower crane and the other side crane .Work to be parallel from the four corners.	Tower crane/ Tire mounted telescopic crane and other crane.
2.1.8	Transportation of dismantled items to customer scrap yard.	Continues process since beginning of dismantling work.	Trailer, Tractor and trolley.

VOLUME-IA PART – I CHAPTER-VII

TERMS OF PAYMENT

Bharat Heavy Electricals Limited: PSWR: Nagpur
Tender Specs. No. BHE/PW/PUR/KRSR-ESP-Dismantling/1464

TECHNICAL CONDITIONS OF CONTRACT (TCC)

7.0 TERMS OF PAYMENT :

Progressive Payment against monthly running bills will be made on Pro-rata basis.

DISMANTLING WORK OF ESP		
S No	Description	ESP Rate Schedule
	PRO RATA PAYMENTS (95%)	%
1	ESP	
1.1	Provision of Scaffolding, cleaning & water washing of complete ESP	10
1.2	Dismantling of Complete insulation, cladding, pipe, cable, cable tray and electrical items etc	10
1.3	Dismantling of Complete Existing ESP & Bag filters for Clearance of new foundation.	50
2	FANS	
2.2	Dismantling of ID Fans for Clearance of new foundation including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.	5
2.3	Dismantling of PA Fans for Clearance of new foundation including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.	5
2.4	Dismantling of SA Fans for Clearance of new foundation including Insulation, Cladding, pipe, cable, cable tray and electrical items etc.	5
3	Area cleaning, temporary structures cutting/removal and return of scrap	15
	TOTAL	100

Note:

1. In case any requirement is there to compress the schedule of activities to achieve project completion, then the additional expenses if any incurred will be discussed mutually and settled. BHEL decision in this regard is final and the issue is not arbitral.
2. Recovery of Retention amount as per Cl. 2.22 of GCC.
3. RA bill payments as per Chapter-X of SCC
4. Payment for the first running bill will be released only on production of the following.
 - i. PF Regn. No.
 - ii. Labor License No.
 - iii. Workmen Insurance Policy No.
 - iv. Unqualified Acceptance for Detailed L.O.I.
 - v. Initial 50% of Security Deposit.
 - VI. RS 100 /- STAMP PAPER FOR PREPARATION OF CONTRACT AGREEMENT.**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER VIII

TAXES AND OTHER DUTIES

8.0 TAXES, DUTIES, LEVIES (Consolidated Rev 04 dated 14/05/2015)

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 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.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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 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.

8.4 BOCW Cess

The quoted rates shall be exclusive of the BOCW Cess which shall be paid extra by BHEL against Documentary evidence. However, the applicability of the BOCW Cess shall be got confirmed from BHEL in writing, before remitting such Cess/tax.

8.5 GST: As and when GST becomes applicable to this contract, the net differential (negative or positive) financial liability of the bidder to the Authorities (as compared to such liability prior to applicability of GST), if any, shall be to the account of BHEL. For this purpose, all available options under the GST shall be explored, and the decision of BHEL in this regard shall be final and binding on the bidder.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER - IX

WEIGHT SCHEDULE

9.0 WEIGHT SCHEDULE FOR DISMANTLING ITEMS

Description	Size	Approx. Weight (MT)
ESP		3041
ID Fan Motor	4400 X 3500X 2200	15.5
PA Fan Motor	2900 X 2600 X 1650	9.5
ID Fan	2 Nos	92
PA Fan	2 Nos	57
SA Fan	2 Nos	7
	Total	181

Koradi-6 (R4F5)EE R & M package - PGMA wt details (tentative)

Cust	PGMA	ESP	
		Description	wt
R4F5	78601	ROLL/SLIDE SUPPORTS	9800
R4F5	78605	ESP-SUB-DELIVERY COMPO	300
R4F5	78606	INSULATOR HOUSING AS	21300
R4F5	78608	GAS DIST. ASSY	45400
R4F5	78609	GD_RAPPING MECHANISM	8250
R4F5	78610	GD_DRIVE ARRANGEMENT	450
R4F5	78611	GAS SCREEN-EP	1100
R4F5	78613	EMIT SYST SUSPENSION	7800
R4F5	78614	SUPPORT INSULATORS	3400
R4F5	78615	EMITTING ELECTRODES	12400
R4F5	78616	EMIT ELECT RAPP MECH	19800
R4F5	78617	DRIVE ARGT. FOR EMIT.	14800
R4F5	78619	COL ELEC SUSPENSION	59500
R4F5	78620	COLLECTING ELECTRODE	583000
R4F5	78621	EMIT SYS FRAME-TOP	74200
R4F5	78622	EMIT SYS FRAME BOTOM	86100
R4F5	78623	INSPECTION DOORS	6100
R4F5	78624	SHOCK BARS	47600
R4F5	78625	COLL ELECT RAPP MECH	49400
R4F5	78626	COLL ELEC RAPP DRIVE	3300

Bharat Heavy Electricals Limited: PSWR: Nagpur
Tender Specs. No. **BHE/PW/PUR/KRSR-ESP-Dismantling/1464**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

R4F5	78628	ESP ROOF PANELS	83100
R4F5	78630	ELECTRICAL SD COMPTS	6500
R4F5	78631	GEARED MOTORS FOR RAPP	10700
R4F5	78632	EMIT SYS FRAME-MIDDLE	85200
R4F5	78637	JUNCTION BOX & PUSH BU	900
R4F5	78642	OUTER ROOF-EP	127700
R4F5	78646	INSULATOR SUPP PANEL	56100
R4F5	78647	ROOF PANEL ASSY	65800
R4F5	78650	INLET-OUTLET FUNNEL	86000
R4F5	78656	RECTIFIER HANDL SYST	12500
R4F5	78657	SPLITTER&GUIDE VANES	13900
R4F5	78659	CONTROL ROOM-INSERTS	27000
R4F5	78660	CABLE-CABLE RACKS	65000
R4F5	78661	EP PERF TEST EQUIPT	300
R4F5	78662	EARTHING,CABLE TRAYS,S	63300
R4F5	78663	ASH LEVEL INDICATOR	500
R4F5	78667	MIN WOOL FOR ESP INSULATION	78000
R4F5	78668	FIXING COMP. FOR ESP INSULATION	38000
R4F5	78672	INTERLOCKS-EP	900
R4F5	78673	ELECTRICALLY OPERTD HO	3600
R4F5	78690	HEATING ELEMENTS	1800
R4F5	78692	AUXILIARY CONTROL PANE	14000
R4F5	89611	ESP ROOF HANDRAILS	5000
R4F5	89615	INSULATION CLADDING SH FOR	40000
		95KVp 1000mA HVR Trfr	37600
		95KVp 1200mA HVR Trfr	16080
		ESP Internal Total	1993480
R4F5	78643	HOPPER RIDGES	32800
R4F5	78644	HOPPER UPPER PART	138400
R4F5	78645	HOP MLD&LOWER PART	177400
R4F5	78648	CASING STRUCTURE	129000
R4F5	78649	CASING SHELL/PANEL	231400
R4F5	78665	APP PLATFORM-HOPPER	40500
R4F5	78666	WATER WASHING SYSTEM	4000
R4F5	78680	FOUNDATION MATLS FOR E	5700
R4F5	78681	SUPPOTING STRUCTURES F	210500
R4F5	89610	EP GALLERIES&STAIRS	30000
R4F5	89612	FLOOR GRILL & STEP TREAD	20000
R4F5	89613	FLOOR GRILL & MOBILE LAD	28000
		ESP Structural and Outer Casing wall	1047700
		Complete ESP Total	3041180
		FANS	
R4F5	56021	ID FAN FOUNDATION MATERIAL	2700

TECHNICAL CONDITIONS OF CONTRACT (TCC)

R4F5	56225	ID FAN NDZV 33	85000
R4F5	56920	ID LOS (20LPM/5BAR)	4500
R4F5	55334	PA FAN AP2-17/12	23500
R4F5	55830	PA FAN COUPLING	1000
R4F5	55930	PA FAN FOLS (80LPM/12BAR)	4500
R4F5	55931	PA SILENCER	28000
		SA Fan	7000
		ID Fan Motor	15500
		PA Fan Motor	9500
		Fans Total	181200

NOTE FOR WEIGHT SCHEDULE:

1. The weights given are only approximate and for general guidance and they are subject to variation as per site requirement for dismantling.
2. The information furnished is only a description regarding the items to be erected by the contractor. BHEL reserves the right to add or exclude any components / items / system according to the site requirements / customer requirements to complete the systems in all respects.
3. Any other systems / Components which are integral to ESP& auxiliaries, supplied by BHEL manufacturing units are also to be dismantled by the contractor within the quoted / accepted tonnage rate / lump sum value.
4. Insulation: Removal of existing insulation from Complete ESP and fans limited to scope of work

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART –I CHAPTER -X

10.0 GENERAL

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

- 10.1 Contractor shall execute the work as per sequence and procedure prescribed by BHEL at site. Any rework on this failure to comply with will be to account contractor only. No claims for extra payment from the contractor will be entertained on the grounds of deviation from the method of dismantling adopted in erection of similar jobs or for any reason whatsoever.
- 10.2 Contractor has to work in close co-ordination with other agency at site. BHEL engineer will co-ordinate area clearance. In a project of such magnitude, it is possible that the area clearance may be less/more at a particular given time. Activities program have to be planned in such a way that the milestones are achieved as per schedule/ plans. Contractor shall arrange & augment the resources accordingly.
- 10.3 The contractor is strictly prohibited from using BHEL's regular components like angles, channels, beams, plates, pipe/tubes, and handrails etc for any temporary supporting or scaffolding works. Contractor shall arrange himself all such materials. In case of such misuse of BHEL materials, a sum as determined by BHEL engineer will be recovered from the contractor's bill. The decision of BHEL engineer is final and binding on the contractor.
- 10.4 The contractor will be responsible for the safe custody and proper accounting of all materials in connection with the work.
- 10.5 No member of the already erected structure/ platform, pipes, grills, platform, other component and auxiliaries should be cut without specific approval of BHEL engineer.
- 10.6 Contractors shall ensure that all their Staff/Employees are exposed to periodical training program conducted by qualified agencies/ personnel on ISO 9001 – 2000 Standards.
- 10.7 For other agencies, such as piping, cabling, instrumentation, insulation etc., to commence their work from/on the equipments coming under this scope, Contractor has to clear the front, expeditiously and promptly as instructed by BHEL Engineer. Some time it may be required to re-schedule the activities to enable other agencies to commence/continue the work so as to keep the overall project schedule.
- 10.8 The terminal points decided by BHEL are final and binding on the contractor for deciding the scope of work and effecting the payment for the work done up to the terminals.
- 10.9 For the purpose of planning, contractor shall furnish the estimated requirement of power (month wise) for execution of work in terms of maximum KW demand.
- 10.10 On Completion of work, all the temporary buildings, structures, pipe lines, cable etc. shall be dismantled and leveled and debris shall be removed as per instruction of BHEL by the contractor at his cost. In the event of his failure to do so, the expenditure towards clearance of the same will be recovered from the contractor. The decision of BHEL Engineer in this regard is final.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

- 10.11 All the necessary certificates and licenses required to carry out this scope of work are to be arranged by the contractor then and there at no extra cost.
- 10.12 The contractor must obtain the signature and permission of the security personnel of the customer for bringing any of their materials inside the sit premises. Without the Entry Gate Pass these materials will not be allowed to be taken outside.
- 10.13 Crane operators deployed by the contractor shall be tested by BHEL before he is allowed to operate the cranes.
- 10.14 All the necessary certificates and licenses required to carry out this scope of work are to be arranged by the contractor then and there at no extra cost.

10.15 SITE INSPECTION

The owner/employer or his authorized agents may inspect various stages of work during the currency of the contract awarded to him. The contractor shall make necessary arrangements for such inspection and carry out the rectification pointed out by the owner/employer without any extra cost to the owner / employer. No cost whatsoever such duplication of inspection of work be entertained.

10.16 UTILITY POINTS

Number of utility points (Service / plant air, service / plant water, service / washing steam, inert gas (N₂) etc., shall be indicated in the P & I diagram. The utility points shall be located at convenient point to handle. Contractor to locate the utility points as advised by site engineer.

10.17 Safety (As per document titled "HSE PLAN" part of BCD)

Adherences to safety are upper most during execution of work, 100% safety norms to be strictly followed. Tenderer should appoint qualified safety officer tom implement safety. He should interact with BHEL and customer for day to day activities. As the work is to be executed in the running plant, all work forces to undergo for a safety classes and obtain the certificate from customer. No person will be allowed without safety training.

- 10.18 Trained and certified safety supervisors to be appointed for every 50 work men. The safety officer, supervisors are not allowed to assigning any work other than safety. Heavy penalty will be levied if any un-safe practices are found during execution of work.

10.19 Penalty

- a) Fatal injury or accident causing death:
Penalty @ Rs.5,00,000 per person .
- b) Major injuries of permanent disablement
Penalty @ Rs.1,00,000 per person.

10.20 Insurance

In addition to the conditions covered under the GCC & SCC, following provisions will also apply:

1. Comprehensive Automobile Insurance

Insurance shall be in such a form to protect the Contractor against all claims for injuries ,disability , disease and death to members of public including the Owner's men and damage to the property of

TECHNICAL CONDITIONS OF CONTRACT (TCC)

others arising from the use of motor vehicles during on or off the site operations , , irrespective of the ownership of such vehicles ..

The liability covered shall be as herein indicated.

Fatal Injury

Rs. 1,00,000/- each person

Rs. 2,00,000/- each occurrence

Property Damage

Rs.1,00,000/- each occurrence.

2. Comprehensive General Liability Insurance

The insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act of omission on the part of the Contractor, his agents, his employees, his representatives and Sub-contractors or from_ riots, strikes and civil connation.

This insurance shall also cover all the liabilities of the Contractor arising out of the Clause entitled "Defence of Suits" in Section GCC, Conditions of Contract.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

VOLUME-IA PART – I CHAPTER - XI

11.0 PROGRESS OF WORK

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

- 11.1 Contractor is required to draw mutually agreed monthly programs in consultation with BHEL well in advance. Contractor shall ensure achievement of agreed program and shall also timely arrange additional resources considered necessary at no extra cost to BHEL.
- 11.2 Progress review meetings will be held at site during which actual progress during the week vis-a-vis scheduled program shall be discussed for actions to be taken for achieving targets. Contractor shall also present the program for subsequent week. The contractor shall constantly update / revise his work program to meet the overall requirement. Necessary preventive and corrective action shall be discussed and decided upon in such review meetings and shall be implemented by the contractor in time bound manner so as to eliminate the cause of nonconformities.
- 11.3 The contractor shall submit daily, weekly and monthly progress reports, manpower reports, materials reports, consumables (gases / electrodes) report, cranes availability report and other reports as per Performa considered necessary by the Engineer as per the format enclosed with this tender document.
- 11.4 The contractor shall submit weekly / fortnightly / monthly statement report regarding consumption of all consumables for cost analysis purposes.
- 11.5 The monthly report ending on 24th of every month shall be submitted as a booklet and shall contain the following details :-
 - a. Color Progress photographs to accompany the report should be submitted.
 - b. Site Organization chart of engineers & supervisors as on 24th of the month with further mobilization plan
 - c. Category- wise man hours engaged during the previous month under the categories of fitters, welders, riggers, khalasis, grinder-men, gas-cutters, electricians, crane operations and helpers. Data will be split up under the work area of Boiler
 - d. Consumables report giving consumption of all types of gases and electrodes during the previous month.
 - e. Availability report of cranes
 - f. Safety implementation report in the format
 - g. Any other inputs required from BHEL for activities planned during the subsequent month.
- 11.6 The manpower reports shall clearly indicate the manpower deployed, category wise specifying also the activities in which they are engaged.
- 11.7 During the course of erection, if the progress is found unsatisfactory, or if the target dates fixed from time to time for every milestone are to be advanced, or in the opinion of BHEL, if it is found that the skilled workmen like fitters, operators, technicians employed are not sufficient BHEL will induct required additional workmen to improve the progress and recover all charges incurred on this account including all expenses together with BHEL overheads from contractor's bills.