

TENDER SPECIFICATION

NO: BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

**BALANCE CIVILWORKS OF ROADS, DRAINS AND CULVERTS INSIDE
BOUNDRY WALL.**

AT

**2 X 250 MW Satpura Thermal Power Station
MADHYA PRADESH POWER GENERATION CORPORATION LTD.
(MPPGCL)
DIST- BETUL
MADHYA PRADESH**

VOLUME- I-TECHNICAL BID

TENDER SPECIFICATIONS CONSISTS OF:

- **Notice Inviting Tender**
- **Volume 1 A - Technical Conditions of Contract,**
- **Volume 1 B - Special conditions of Contract,**
- **Volume 1 C - General conditions of Contract**
- **Volume 1 D - Forms & Procedures**



Bharat Heavy Electricals Limited
(A Government of India Undertaking)
Power Sector - Western Region
345-Kingsway, Nagpur-440001

CONTENTS			
Volume No	Description	Hosted in website bhel.com as files titled	No. of pages
NIL	Tender Specification Issue Details	(Part of <u>Vol-IA-1274</u>)	3
NIL	Notice Inviting Tender	(Part of <u>Vol-IA-1274</u>)	20
I-A	Technical Conditions of Contract	Vol-IA-1274	31
I-B	Special Conditions of Contract	Vol-IBCD-1274	47
I-C	General Conditions of Contract	(Part of <u>Vol-IBCD-1274</u>)	30
I-D	Forms & Procedures	(Part of <u>Vol-IBCD-1274</u>)	74
II	Price Bid Specification	Vol-II-1274	

LEGEND:

This document (i.e. NIT &Vol-I Tech Bid) is issued as one booklet.

§: “Vol I -B, I-C, I-D” is a part of technical bid issued as separate booklet.

@: Price bid is issued as a separate hard copy booklet ‘Tender Specifications – Volume-II-Price Bid)’.

CUSTOMER TECH. SPECIFICATION OF CIVIL WORKS - SECTION - C & D are considered part of Vol IA ‘Technical Conditions of Contract’. However same are issues as separate booklet.

TENDER SPECIFICATION
NO: BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

BALANCE CIVIL WORKS OF ROADS, DRAINS AND CULVERTS INSIDE BOUNDARY WALL.

AT

2 X 250 MW Satpura Thermal Power Station
MADHYA PRADESH POWER GENERATION CORPORATION LTD.
(MPPGCL)
DIST- BETUL
MADHYA PRADESH

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR TENDER SUBMISSION: Refer Notice Inviting Tender

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING **VOLUME-I-Tech Bid**, **VOLUME- II-Price Bid** AND VOLUME-IB, C, D Rev-01 and Vol-II-B Section-D and Vol- IE-Technical specification ARE ISSUED TO:

M/s.

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PLEASE NOTE:
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

AGM (Purchase)
Place: Nagpur
Date:

1274

NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Ref: BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Date: 23/05/2014

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

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/SAT-BAL CVL PKG-I/1274
ii	Broad Scope of job	BALANCE CIVIL WORKS OF ROADS, DRAINS AND CULVERTS INSIDE BOUNDRY WALL AT 2 X 250 MW Satpura Thermal Power Station MADHYA PRADESH POWER GENERATION CORPORATION LTD. (MPPGCL) DIST- BETUL MADHYA PRADESH
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>
e	Volume-II	<i>Price Schedule (Absolute value).</i> Applicable
iv	Issue of Tender Documents	<p>1. <u>Sale from BHEL PS Regional office at :</u> Start : 23/05/2014 , Closes: 30/05/2014 , Time : 16.00 Hrs</p> <p>2. From BHEL website (www.bhel.com) Tender documents will be available for downloading from website till due date of submission</p> Applicable/ Not applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	<p>Date : 02/06/2014, Time 15.00 Hrs Place : <u>BHEL PS Regional office at :Nagpur</u></p> <p>Tenders being submitted through representative shall be submitted at dispatch section 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"> • Pratih Gee Varghese/Sr Engineer(Purchase • Shivkesh Meena / Engineer (Purchase) Applicable

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 6 of 54

vi	OPENING OF TENDER	1 hours after the latest due date and time of Offer submission Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & 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	Applicable
vii	EMD AMOUNT	Rs 2.00 Lakhs (Rupees Two Lakhs Only)	Applicable
viii	COST OF TENDER	Rs 2000/-. (Rupees Two Thousand Only)	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)	Date :	Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)		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:
- 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

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 7 of 54

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
	Part-I A	
	ENVELOPE – I superscribed as : PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: 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: <ol style="list-style-type: none"> 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. <ol style="list-style-type: none"> 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 A : <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 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.	

PART-I B		
	ENVELOPE – II superscribed as: PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:	

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 8 of 54

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

	PART-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"> o Envelopes I o Envelopes II o 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 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 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 (i.e $P_T = P_1 + P_2 + P_3 + P_4 + \dots P_N$)
- b) Number of Months 'T₁' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package P₁. Similarly T₂ for package P₂, T₃ for package P₃, 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 'S₁' of 'Monthly Performance Evaluation' Scores (S₁₋₁, S₁₋₂, S₁₋₃, S₁₋₄, S₁₋₅,..... S_{1-N}) for similar package P₁, for the 'period of assessment' 'T₁' (i.e $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots S_{1-N}$). Similarly S₂ for package P₂ for period T₂, S₃ for package P₃ for period T₃, 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' = S₁ + S₂ + S₃ + S₄ + S₅ + 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):

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

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

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

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

ii) Calculation of Overall 'Performance Rating' (R_{BHEL}) in case 'similar Package/Packages' for the tendered scope ARE NOT AVAILABLE, during the 'Period of Assessment':

This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for ALL the packages, divided by the total number of Package months for which evaluation should have been done. ' R_{BHEL} ' shall be calculated subject to availability of 'performance scores' for at 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_{BHEL} cannot be calculated as above, then Bidder shall be treated as 'NEW VENDOR'. Further eligibility and qualification of this bidder shall be as per definition of 'NEW VENDOR' described in 'Explanatory Notes'

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

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

III. 'Assessment of Capacity of Bidder':

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

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

Note:

- 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 9.1)

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 vi). Cooling Tower vii). Others (Civil)	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 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)

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_{BHEL}'** 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)

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 13 of 54

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- 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.

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. .

- 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.
- 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
- 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.

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 15 of 54

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- 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: Important Information .
4. Other Tender documents as per this NIT.

ANNEXURE - 1

PRE QUALIFYING CRITERIA

JOB	BALANCE CIVIL WORKS OF ROADS, DRAINS AND CULVERTS INSIDE BOUNDRY WALL AT 2 X 250 MW Satpura Thermal Power Station MADHYA PRADESH POWER GENERATION CORPORATION LTD. (MPPGCL) DIST- BETUL MADHYA PRADESH
TENDER NO	BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document. Bidder must fill up this column as per applicability
A	Submission of Integrity Pact duly signed (if applicable) (Note: To be submitted by Prime Bidder & Consortium/Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)	Not APPLICABLE	
B	<u>Technical</u> Bidder must have successfully executed Civil works such as buildings / other infrastructural works in the last seven (7) years as on latest date of bid submission as below: i. One similar work of value not less than Rs 448 Lakhs. OR ii. Two similar works each of value not less than Rs 280 Lakhs. OR iii. Three similar works each of value not less than 224 Lakhs.	APPLICABLE	
C-1	<u>Financial TURNOVER</u> Bidders must have achieved an average annual financial turnover (Audited) of Rs 168 Lakhs or more over last three Financial Years (FY) i.e. 2011-2012, 2012-2013, 2013-14 OR 2010-2011, 2011-12 and 2012-13 if Annual Accounts for FY 2013-14 are not audited.	APPLICABLE	
C-2	<u>NETWORTH</u> (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive	APPLICABLE	

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 17 of 54

C-3	PROFIT 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.	APPLICABLE	
D	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT (if applicable)	APPLICABLE	By BHEL
E	Approval of Customer (if applicable) Note: Names of bidders (including consortium/Technical Tie up partners in case consortium bidding is permitted) who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval.	APPLICABLE	BY BHEL
F	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E	APPLICABLE	BY BHEL
F	Technical Tie up criteria (if applicable)	NOT APPLICABLE	
<p><u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u></p> <ol style="list-style-type: none"> 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 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. 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) 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 'Additional' Criteria in respect of 'Technical' criteria of PQR (as in 'B' above) for Civil, Electrical, CI, unless otherwise specified: <ol style="list-style-type: none"> _____ Bidder should have executed similar work of any one of the following: <ol style="list-style-type: none"> _____ One (1) work of value not less than Rs XXX _____ OR _____ Two (2) works of not less than Rs YYY _____ OR _____ Three (3) works of not less than Rs ZZZ (Value XXX, YYY, ZZZ shall be as indicated by BHEL) _____ 'Similar' work for criteria 5 above means <ol style="list-style-type: none"> _____ Civil or Structures or Civil & Structures or Chimney respectively as applicable to the tendered scope in respect of 'CIVIL' Works _____ Electrical works in respect of 'ELECTRICAL' _____ CI works in respect of 'CI' Works _____ Material Handling and/or Management works in respect of 'MM' works 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 '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 Unless otherwise specified, for the purpose of 'Technical' criteria of PQR (as in 'B' above), the word 'EXECUTED' means: <ol style="list-style-type: none"> _____ "BOILER LIGHT UP" in respect of Boiler & Aux and ESP 			

2.	"SYNCHRONISATION" in respect of STG/GTG and 'SPINNING' in case of HTG
3.	"STEAM BLOWING COMPLETION" in respect of at least Main Steam Line of Power Cycle Piping
4.	"HYDRAULIC TEST" of the system in respect of Structures, Pressure parts/IBR Piping
5.	"CHARGING" in respect of power Transformers, Bus ducts, HT/LT switchgears
6.	"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.
7.	Achievement of physical Quantities as per respective PQRs in respect of Civil & Structures and Piling Works
8.	'Readiness for coal Filling" in respect of Bunker Structure Work.
9.	Boiler means HRSG or WHRB or any other types of Steam Generator
10.	Critical/Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass, LP Bypass lines
11.	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.
12.	In case the experience/PO/WO certificate enclosed by bidders do not have separate break up prices for the E&C portion of Electrical and CI Works, (i.e. the certificates enclosed are for composite order for supply and erection of Electrical & CI and other works if any), then value of Erection and Commissioning for the Electrical & CI portion shall be considered as 15% of the supply & erection of Electrical & CI, unless otherwise specifically indicated in the PQR.
13.	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.
14.	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
15.	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.

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.

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(BY BHEL)	ENCLOSED BY BIDDER
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/ Not Applicable	YES/NO
8	Copy of PAN Card	Applicable/ Not Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable/ Not Applicable	YES/NO
10	Integrity Pact	Not Applicable	YES/NO
11	Declaration by Authorised Signatory	Applicable/ Not Applicable	YES/NO
12	No Deviation Certificate	Applicable/ Not Applicable	YES/NO
13	Declaration confirming knowledge about Site Conditions	Applicable/ Not Applicable	YES/NO
14	Declaration for relation in BHEL	Applicable/ Not Applicable	YES/NO

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/SAT-BAL CVL PKG-I/1274

Page 20 of 54

15	Non Disclosure Certificate	Applicable/ Not Applicable	YES/NO
16	Bank Account Details for E-Payment	Applicable/ Not Applicable	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Applicable/ Not Applicable	YES/NO
18	Tie Ups/Consortium Agreement are submitted as per format	Applicable/ Not Applicable	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable/ Not Applicable	YES/NO
20	Analysis of Unit rates	Applicable/ Not Applicable	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 :

AUTHORISED SIGNATORY
(With Name, Designation and Company 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 ---> 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.PRICE VARIATION CLAUSE

Price Variation Compensation Clause no. 2.17 of Vol I C GCC shall not be Applicable:

6.OVER RUN COMPENSATION

Over Run Compensation Clause no. 2.12 of Vol I C GCC shall not be Applicable

7.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:

- 7.1. 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).
- 7.2. 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

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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.

- 7.3. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
- 7.4. 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.
- 7.5. 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.
- 7.6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
- 7.7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
- 7.8. 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.
- 7.9. 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.
- 7.10. Reverse auction will be conducted on scheduled date & time.
- 7.11. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
- 7.12. 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.
- 7.13. 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.
- 7.14. 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.

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- 7.15. 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.
- 7.16. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
- 7.17. 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.

Rev 00
6th
JULY

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

SI No	DESCRIPTION	Chapter
Volume-IA	Part-I: Contract specific details	
1	Project Information	Chapter-I
2	Scope of Works and Technical Specifications	Chapter-II
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V
6	Time Schedule	Chapter-VI
7	Terms of Payment	Chapter-VII
8	Taxes and other Duties	Chapter-VIII
9	Tender Drawings	Chapter-IX

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: Project Information

1.0	Project Information
1.1	<p><u>INTRODUCTION</u> 2x250 MW Extension Units 10 & 11 of Satpura Thermal Power Station.</p> <p><u>APPROACH TO SITE</u></p> <p>Location: P.O. Sarni, BetulDistt, Madhya Pradesh. 90 kms Southeast of the Itarsi.</p> <p>Nearest Railway Station: Ghoradongri 18 kms, from site (on Itarasi Nagpur line)</p> <p>Access by Road: Sarni is connected to Ghoradongri by 18Kms long all weather District Road. Ghoradongri is 71 Kms from Itarasi on Itarasi - Betul State Highway.</p> <ol style="list-style-type: none">1. Ambient Air Temperature:<ol style="list-style-type: none">a) Maximum Deg: 48.5^oCb) Minimum Deg: 6.5^oCc) Reference temperature (for design of Electrical equipment/Device Deg.): 50^oCd) Design Wet Bulb: 28^oCe) Design Dry Bulb: 42^oC2. Relative Humidity<ol style="list-style-type: none">a) Maximum % during monsoon: 96%b) Minimum %: 12% (April)c) Design % (W/O affecting performance at maximum at max % humidity): 34%3. Rainfall<ol style="list-style-type: none">a) Annual average mm: About (47.7") 1210mmb) Monthly average mm: Max .Sept. 381 mmc) Period: June - Octoberd) Design maximum rainfall intensity mm/hr: (July) 74 mm in 24 hours.e). Isckeraunic level: Thunder heard 11 days in June4. Wind Velocity:<ol style="list-style-type: none">a) Maximum Km/hr: 10 Km/hrb) Wind Direction: Average 23^o SSW5. Seismic Data<ol style="list-style-type: none">a)Zone: IIIb) Design Coefficient: 0.06 g6. Climatic Condition: Tropical.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II : Scope of Works and Technical Specifications

2.0 SCOPE OF WORK:-

BALANCE CIVIL WORKS OF RCC ROADS, DRAINS AND CULVERTS INSIDE BOUNDRY WALL OF PLANT PREMISES.

The scope of works covers all balance (either incomplete or partial stage)civil and misc. works and backfilling and dressing works for the above areas including supply of all Materials, Labours, Tools and Plants.

For detailed specification, please refer MPPGCL document (Technical Specifications for civil works) provided with this Technical bid.

Specifications are categorized and included in the scope but not limited to, is as follows:

2.0.1 Arrangement of Construction water:

Contractor shall arrange construction water from nearest location of raw water reservoir of existing Power Plant by installing suitable Pump & lockable Pump room with all accessories and laying suitable diameter of pipeline from pumping station to the work site approx. 1.5M to 2.0KM Contractor has to make necessary watch & ward arrangement & periodical maintenance for their water construction water supply systems). Drinking water tapping point shall be provided by Customer/MPPGCL from their nearest existing point free of charge & Contractor has to draw the line up to their office at their own cost.

(No items has been provided in BOQ for construction water arrangement & Contractor has to arrange for adequate construction water supply including storage for min. 2 days in case of breakdown of pump etc. within their quoted rates.)

2.0.2 Arrangement of Construction Power:

a. Installation : It is the responsibility of civil contractor to get suitable power connections from Madhya Pradesh Madhya Kshetra Vidut Vitran company Ltd (**MPMKVVC LTD**) for desired load according to their work requirement and the equipments to be operated for total Civil and structural works of 2 x 250 MW Main

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II : Scope of Works and Technical Specifications

Power Block within the scope. It is further clarified that successful bidder shall work out the total power requirement and approach to **MPMKVVC LTD** for getting power connection from 11KV/33KV overhead line. The work shall include supply and installation of suitable transformer, getting the extension line of overhead 11KV/33KV line up-to the transformer to be installed at suitable location and further distribution to the work site with all accessories, cabling, DBs, safety devices, capacitors etc. as per the requirement of Electricity Regulations. etc. The work shall conform to standard practice of Electrical engineering including approval of statutory authority as per Electricity Regulations.

b. Billing: Contractor shall pay to MPMKVVC LTD. for the installation as well as for actual Power consumed on the job as per the energy meter installed on HT side @ of per unit prevailing tariff applicable from time to time. Contractor should note that it is mandatory for all major electrical instruments including the welding machine to be fitted with suitable capacitors for improvement of Power factor.

(No items have been provided in BOQ for construction Power arrangement & Contractor has to arrange for adequate construction Power supply within their quoted rates.)

2.0.3 PROCUREMENT AND SUPPLY OF ALL CONSTRUCTION MATERIALS:

Contractor shall procure and supply all the construction materials like **Cement, Reinforcement (TMT bars Fe-500), Structural steel, HSFG Bolt, MS Bolts, MS/GI/HCI/LDPE/HDPE/UPVC/RCCHume pipes, Gratings, Rails, Inserts & Embedments, Earthing , Shuttering material, fine & coarse aggregates, Fly ash Bricks & all other materials** required for successful execution of job. Contractor shall obtain prior approval for all major materials from BHEL/MPPGCL before placing the order for procurement & shall submit all the relevant test reports from approved Lab. Besides the Manufacturer's test Certificate within their quoted rates.

APPROVED MANUFACTURERS FOR PROCUREMENT OF REINFORCEMENT & STRUCTURAL STEEL ARE

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II : Scope of Works and Technical Specifications

(i) M/s SAIL

In case of non-availability of desired section of steel from the above manufacturers, Contractor has to obtain specific approval of Customer for other manufacturers. However in any case steel from re-rolling mills shall not be accepted.

APPROVED BRAND & MANUFACTURERS FOR PROCUREMENT OF CEMENT AND ITS USAGE:

Either OPC Grade 43 or 53 may be used for concrete works except that OPC Grade 43 shall necessarily be used for the following structures:

(a) Structures requiring Grade of concrete M30 and above.

APPROVED MANUFACTURERS ARE

(i) ULTRATECH

(ii) PRISM CEMENT SATNA

(iii) JAYPEE CEMENT

(iv) ACC

(v) BIRLA GOLD

(vi) SHREE CEMENT (RAJASTHAN)

2.1.0 OTHER IMPORTANT POINTS WHICH ARE IN-BUILT IN SCOPE OF WORK:

The scope of work under this contract is deemed to be complete only when so certified by the Engineer-in-Charge of BHEL.

2.1.1 The works to be performed under this contract consist of providing all labour, supervision, scaffolding, construction equipments, tools and plants, temporary works, other supplies , transportation and

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II : Scope of Works and Technical Specifications

all incidental items not shown or specified but reasonably implied or necessary for the proper completion of work in all respects. Testing of all materials, concrete, earthwork other allied works, preparation of bar bending schedules on the basis of construction drawings, preparation of fabrication drawings etc. are included on the rates of items of work. Works shall only be carried out with approved Construction drawings.

- 2.1.2 The area of work shall be cleared of all vegetation, rubbish and other objectionable matter and materials removed shall be burnt or otherwise disposed of as directed by the Engineer-in-Charge. No separate payment for these operations shall be made. The cost of all these operations shall be deemed to have been included in the unit rates rendered for the different terms under bill of quantities.
- 2.1.3 All the works areas shall be adequately flood lighted to the satisfaction of the Engineer-in-Charge when the work is in progress during the night shifts.
- 2.1.4 The unit rates shall include all material equipment, fixtures, labour construction plant, temporary works and everything whether of permanent or temporary nature necessary for the completion of job in all respects.
- 2.1.5 **The unit rates quoted for various items of B.O.Q shall include all the stipulations mentioned in technical specifications under Section C and Section D, all expenditure towards arrangement of construction Power & Water etc. and nothing extra over B.O.Q rates shall be payable. In case of any conflict between Section – C and Section – D then stipulation in Section –C will prevail.**
- 2.1.6 Design drawings showing enough details for the construction as per the specification shall be furnished to the contractor in a phased manner as far as possible during execution.
- 2.1.7 Customer shall provide land outside plant premises for regular disposal and associated activities in respect of excavated surplus earth, dismantled materials generated from this work. Rates quoted shall be inclusive of above condition.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II : Scope of Works and Technical Specifications

2.2.0 Use of readymix/ premix concrete:

Contractors are supposed to use ready mix/premix concrete, produced from their own batching plant for each and every grade of concrete with minimum cement content as per IS 456 (latest edition) with the approval of BHEL/MPPGCL. However contractor shall be permitted to go for the use of conventional method of producing concrete for small qty of PCC.

The contractor shall install his concrete mixture machine, batching plant; arrange all T&P like concrete pump, transit mixers etc., at the location provided by Customer/BHEL and the land required for this shall be provided by customer free of charge. rate quoted shall be inclusive of this factor.

2.2.1 It will be the responsibility of contractor to arrange for uninterrupted movement of the concrete transit mixture through the passage gate during the concreting through batching plant to avoid and deterioration of quality of concrete. The contractor shall obtain advance permit/ gate passes, permission from the customer in this regard. Any loss of material or concrete mix etc., due to any problem during transit of such pre-mix concrete shall entirely be on contractor's account and BHEL shall not be responsible for such loss in any manner.

2.3.0 Contractor shall make his own arrangement inside/outside the plant premises for storage of the steel, cement and other materials including the building materials. Space for development of such infrastructure facilities shall be provided by Customer/MPPGCL at free of cost. Also for fabrication of steel structurals and reinforcements the necessary area outside the plant premises with all necessary infrastructures has to be arranged by the contractor. All costs, duties, levies, taxes and incidental, charges etc., have to be borne by the contractor. Requisite fencing and other suitable security arrangements etc. shall be the contractor's responsibility. Transport of the worked and fabricated items, arranging gatepasses and other permits etc., is also part of contractor's responsibility. The rates quoted shall be inclusive of all the above and related factors. No claim whatsoever will be entertained by BHEL in this regard.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II : Scope of Works and Technical Specifications

2.4.0 General

- 2.4.1 The scope of work will also include such other related works, in and outside of battery limit, although they may not be specifically mentioned in these paragraphs and all such incidental items not specified, but reasonably implied and necessary for completion of the job as a whole, as desired and as directed by the engineer.
- 2.4.2 The drawings enclosed with this tender are intend to give the tenderer a general idea of the type and extent of work involved. The drawings are as such only indicative and not to be construed as the exact construction drawings. The work shall be executed as per the “RFC” drawing (Released for construction) supplied by BHEL from time to time (2 sets) in phased manner.
- 2.4.3 All equipments shall be handled very carefully to prevent any damage or loss. The material from the contractor’s storage yard shall be moved to the actual site of erection/ location at the appropriate time as per the direction of BHEL engineer so as to avoid damage/loss of such material, congestion at site.
- 2.4.4 Materials shall be stacked neatly, preserved and stored in the contractor's shed and work areas in an orderly manner.
- 2.4.5 Should the contractor or his workmen or servants break, deface, injure or destroy any part of a building, road, kerbs, fence, enclosures, water pipes, cables, drains, electric or telephone posts or wires, trees or any other property, or to any part of erected equipments and stored components etc., the contractor shall make the same good at his own expense or in default, the BHEL site engineer may cause the same to be made good by other agency or by other means and deduct the expense with BHEL overhead (of which the site engineer's decision is final) from any sums that may be then or at any time thereafter become due to the contractor or from his security deposit or any other money due.
- 2.4.6 The work has to be executed with the constraints like rain, insufficient space, improper approach roads etc., and in conjunction with numerous other operations at site. The contractor and his personnel shall cooperate with other personnel/contractor, coordinating his work with others and

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II : Scope of Works and Technical Specifications

proceed in a manner that shall not delay or hinder the progress of work as a whole.

2.4.7 Recoveries will be made from contractor's bills for any liability accrued to BHEL/MPPGCL for the accidents and refund of the same shall be considered later, after the claim is fully settled by insurance authorities.

2.4.8 The contractor shall submit survey report/performance report of the tools and plants deployed by him and being utilized on the work under the scope. These survey reports/performance reports are to be obtained by contractor from the customer of BHEL/insurance authorities and submitted to BHEL at no extra cost.

2.4.9 In case, any additional expenditure is/to be incurred in work during execution arising out of the faulty execution of such work by the contractor, the same shall be borne by the contractor.

2.5.0 Also included in the scope

Unless otherwise specified, the work to be provided for by the contractor for the items as mentioned in the "schedule of items"/rate schedule shall include but not be limited to the following:

2.5.1 Furnishing manufacturer's test certificates and laboratory report in respect of the products used or intended to be used, if called for in the specifications or if so desired by the engineer. Approval of these manufacturer's test certificates shall be obtained mandatorily from BHEL prior to use of respective materials which otherwise may render these materials liable for rejection.

2.5.2 Furnishing samples of all materials required by the engineer for testing/inspection and approval for use in the works. The samples may be retained by the engineer for final incorporation in the works.

2.5.3 Providing all incidental items not shown or specified but reasonably implied or necessary for the successful completion of the work in accordance with contract.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II : Scope of Works and Technical Specifications

2.5.4 Liaisoning with and obtaining all applicable clearance from concerned authority (in any) for the portion of work executed under these specifications shall be the responsibility of the contractor. BHEL will provide only the technical assistance like furnishing technical information etc. in this regard. All statutory fees paid in this regard shall be reimbursed on actual by BHEL on production of proof of payment thereof. All other arrangements and expenses shall be borne by the contractor.

2.6.0 Work by Others:

No work under this specification will be provided by any agency other than the contractor unless specifically mentioned elsewhere in the contract.

2.7.0 Contractor shall display 'danger boards' as per instruction of BHEL/ Customer as per requirement.

2.8.0 Contractor shall not be allowed to bring any inflammable material inside the plant. However, for absolute requirement of these materials contractor shall have to take advance permission/approval from BHEL/Customer and shall store in proper place following adequate safety measures and shall put banner/board danger/ inflammable /highly inflammable/no smoking' as per the requirement of BHEL/Customer.

2.9.0 Contractor shall provide sufficient quantities of fire hydrant (water, sand) and fire extinguishers at safe/accessible distance while carrying out hot work. Contractor shall deploy his trained persons for operation of such safety equipment.

2.10 Field Quality Lab.

The contractor has to establish a separate field quality lab at site with all requisite instruments and qualified engineers/supervisor for day-to-day quality checks of concrete and other building materials during the progress of work. All quality records and logsheets shall be maintained as per the requirement of BHEL/BHEL'S Customer and as per field quality plan approved by BHEL/MPPGCL.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II : Scope of Works and Technical Specifications

2.11 Joint Checking of Work and Measurement of Work done for Billing;

Since this being cost plus contract of BHEL with MPPGCL, it is mandatory for contractor to invite BHEL as well as MPPGCL both for day to day checking of foundation & other works before casting or commencement of work & obtain clearance in pour card/protocols formats as per FQP (Field Quality Plan) duly signed by all the three agencies. The pour card/protocols shall be the basis of measurement of work done for preparation of monthly RA Bills.

2.12 Submission of Monthly RA Bills

Contractor shall submit his monthly RA Bills to BHEL on every 26th day of the months for the payment of work done from 25th of previous month to 24th of next month. Bill shall accompany with all pour cards/protocol signed by BHEL/MPPGCL on day to day basis. After verification & scrutiny of the bill the same shall be forwarded to MPPGCL for their vetting. However payment shall be released as per the terms of payment mentioned under GCC or SCC.

OBLIGATIONS OF THE CONTRACTOR (TOOLS, TACKLES, MATERIALS, CONSUMABLES ETC.)

3.1

MPPGCL/BHEL SHALL PROVIDE LAND OUTSIDE THE PROJECT FOR CONSTRUCTION OF TEMPORARY LABOUR COLONY AT FREE OF COST. CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENT FOR CONSTRUCTION OF LABOUR COLONY INCLUDING POWER SUPPLY & POTABLE/DOMESTIC USE WATER SUPPLY AT THEIR OWN COST.

3.2 **TOOLS AND TACKLES**

3.2.1

ALL TOOLS AND TACKLES LIKE CONCRETE BATCHING MIXING PLANT OF REQUIRED CAPACITY, TRANSIT MIXER MACHINES, CONCRETE PUMPS, POCLAINS, TIPPERS, ROAD ROLLERS, WELL POINT DEWATERING SYSTEM, DEWATERING SYSTEM, VIBRATORS, PLATE VIBRATORS, CRANES OF ADEQUATE CAPACITY (INCLUDING HIGH REACH) FOR UNLOADING, LOADING OF RAW & FABRICATED MATERIALS, PRE-ASSEMBLY, ETC TO BE DONE AT CONTRACTOR'S STORAGE CUM FABRICATION YARD OUTSIDE/INSIDE PLANT PREMISES INCLUDING OPERATOR/DRIVER, FUEL, LUBRICANTS, ALL OTHER CONSUMABLES AND REQUIREMENTS HAVE TO BE ARRANGED BY THE CONTRACTOR. **BHEL WILL NOT PROVIDE ANY TOOLS AND PLANTS INSIDE/OUTSIDE PLANT PREMISES.**

3.2.2

ALL TOOLS AND TACKLES TO BE USED BY THE CONTRACTOR FOR THE WORK SHALL HAVE THE PRIOR APPROVAL OF BHEL ENGINEER IN REGARD TO BRAND, QUALITY AND SPECIFICATION.

3.2.3

CONTRACTOR SHALL PROVIDE ALL THE NECESSARY SCAFFOLDING MATERIALS, TEMPORARY STRUCTURES AND NECESSARY SAFETY DEVICES ETC.

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

3.2.4

CONTRACTOR SHALL MAINTAIN AND OPERATE HIS TOOLS AND PLANTS IN SUCH A WAY THAT MAJOR BREAKDOWNS ARE AVOIDED. IN THE EVENT OF MAJOR BREAKDOWN, CONTRACTOR SHALL MAKE ALTERNATE ARRANGEMENTS EXPEDITIOUSLY SO THAT THE PROGRESS OF WORK IS NOT HAMPERED.

3.2.5

IN THE EVENT OF CONTRACTOR FAILING TO ARRANGE THE REQUIRED TOOLS, PLANTS, MACHINERY, EQUIPMENT, MATERIAL AND NONAVAILABILITY OF THE SAME OWING TO BREAKDOWN, BHEL WILL RESORT TO HIRING OUT THE SAME FROM OUTSIDE AGENCIES OR MAY PROVIDE THEIR EQUIPMENT IF AVAILABLE OR MAY RESORT TO BUYING OF EQUIPMENT/MATERIAL AT THE COST OF CONTRACTOR. FULL COST OF EQUIPMENT/HIRE CHARGES/RENTAL CHARGES ALONGWITH DEPARTMENTAL OVERHEADS @ 30% WILL BE CHARGED TO THE CONTRACTOR.

3.2.6

THE T&P TO BE ARRANGED BY THE CONTRACTOR SHALL BE IN PROPER WORKING CONDITION. THE OPERATION SHALL NOT LEAD TO UNSAFE CONDITIONS. THE MOVEMENTS OF CRANES AND OTHER EQUIPMENT SHOULD BE SUCH THAT NO DAMAGE/BREAKAGE OCCURS TO THE FOUNDATIONS, EQUIPMENTS, MATERIAL AND MEN. ALL ARRANGEMENTS FOR MOVEMENT OF ALL HIS T&Ps ETC., SHALL BE CONTRACTOR'S RESPONSIBILITY.

3.2.7

SINCE THE MAJORITY OF THEIR EQUIPMENTS, T&P HAVE TO BE STATIONED IN THEIR FABRICATION YARD, CONTRACTOR SHALL TAKE INTO ACCOUNT ALL FACTORS, IN THE PRICE QUOTED, INCLUDING FREQUENT MOVEMENT OF TOOLS AND PLANTS INSIDE AND OUTSIDE THE PLANT PREMISES.

3.2.8

CONTRACTOR SHALL FURNISH THE PROOF OF OWNING THE MAJOR TOOLS AND PLANTS.

3.3 CONSUMABLES

3.3.1

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

THE CONTRACTOR SHALL PROVIDE ALL CONSUMABLES REQUIRED FOR CARRYING OUT THE WORK COVERED UNDER THIS SCOPE OF WORK.

3.3.2

ALL CONSUMABLES TO BE PROCURED AND USED FOR THE WORK MAY HAVE TO HAVE PRIOR APPROVAL OF BHEL ENGINEER IN REGARD TO BRAND AND QUALITY SPECIFICATION.

3.4 WELDING ELECTRODES AND GASES

3.4.1

ALL THE REQUIRED WELDING ELECTRODES AS APPROVED BY BHEL SHALL BE ARRANGED BY CONTRACTOR AT HIS COST. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN APPROVAL OF BHEL, BEFORE PROCUREMENT REGARDING SUPPLIER, TYPE OF ELECTRODES ETC. ON RECEIPT OF THE ELECTRODES AT SITE, IT SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY BHEL REGARDING TYPE OF ELECTRODES, BATCH NUMBER AND DATE OF EXPIRY ETC.

BHEL RESERVES THE RIGHT TO REJECT THE USE OF ANY ELECTRODES AT ANY STAGE, IF FOUND DEFECTIVE BECAUSE OF BAD QUALITY, IMPROPER STORAGE, EXPIRY DATE, UNAPPROVED TYPE OF ELECTRODES ETC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE THE SAME AT HIS COST WITHOUT LOSS OF TIME.

3.4.2

WELDING ELECTRODE STORAGE FACILITY (ROOM) HAVING EXTERNAL HEATING ARRANGEMENT TO CONTROL TEMPERATURE AND HUMIDITY AS PER THE SPECIFICATIONS OF BHEL SHALL BE PROVIDED.

3.4.3

ALL THE REQUIRED GASES LIKE OXYGEN, ACETYLENE, ETC. SHALL BE PROVIDED BY THE CONTRACTOR AT HIS COST.

3.4.4

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

IF AT ANY TIME DURING THE EXECUTION OF WORK, IT IS NOTICED THAT THE WORK IS SUFFERING ON ACCOUNT OF NONAVAILABILITY OF INPUTS FROM THE CONTRACTOR'S SIDE LIKE ELECTRODES, GASES AND OTHER MATERIALS, TOOLS & PLANTS, THEN, BHEL WILL MAKE ALTERNATE ARRANGEMENTS AND THE NECESSARY COSTS WITH OVERHEADS @ 30% SHALL BE RECOVERED.

3.4.5

MONTHLY CONSUMPTION DETAILS IN RESPECT OF ALL MAJOR CONSUMABLES SHALL BE SUBMITTED TO BHEL.

3.5 FIELD OFFICE, STORES, DISPOSAL AREA FOR EXCAVATED SURPLUS EARTH ETC.

3.5.1 SITE OFFICE & STORES:

THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR FIELD OFFICE, STORE SHED FOR STORING CEMENT & OTHER PROJECT MATERIALS AND SITE STORES FOR STORING SMALL T&Ps, HANDTOOLS, ETC. ONLY THE OPEN SPACE FOR THIS PURPOSE WILL BE PROVIDED BY BHEL/MPPGCLFREE OF CHARGE.

3.5.2 MAJOR STORES AND FABRICATION YARD FOR STRUCTURALS

(A)SPACE WILL BE MADE AVAILABLE IN/OUTSIDE PLANT PREMISES AS PER THE AVAILABILITY FOR STORAGE OF CONTRACTOR'S MATERIALS LIKE CEMENT, STEEL, T&Ps, CONSUMABLES INCLUDING WELDING ELECTRODES ETC., AND FOR FABRICATION OF STRUCTURALS. CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENT FOR STORAGE OF CEMENT, STEEL, CONSUMABLES AND MAJOR TOOLS AND PLANTS INCLUDING BATCHING PLANTS, OTHER VALUABLE MATERIAL BROUGHT FOR THE WORK. SIMILARLY SPACE FOR STORAGE, FABRICATION, PRE-ASSEMBLYOF STRUCTURALS SHALL BE PROVIDED BY THE CUSTOMER IN/OUTSIDE THE PLANT PREMISES.

- (B) CLOSE STORAGE SHED TO BE USED FOR STORAGE OF CEMENT SHOULD HAVE ADEQUATE CAPACITY AND PROTECTED ENOUGH AGAINST LEAKAGE DURING MONSOON AND DAMPNES. STORING OF CEMENT AND STEEL SHALL BE DONE FOR THE STANDARD PRACTICE OF CIVIL ENGINEERING AND AS PER THE INSTRUCTION OF BHEL.
- (C) CONTRACTOR SHALL PROVIDE TARPAULINS, SLEEPERS AND ANY OTHER MATERIALS / AID REQUIRED FOR STORAGE OF ALL THEIR MATERIALS IN THEIR STORAGE CUM FABRICATION YARD AS WELL AS AT SITE.

3.5.3 AREA FOR DISPOSAL OF EXCAVATED SURPLUS EARTH

AREA FOR DISPOSAL OF EXCAVATED SURPLUS EARTH SHALL BE PROVIDED BY THE CUSTOMER AT FREE OF COST OUTSIDE THE BATTERY LIMIT/PROJECT PREMISES. CONTRACTOR SHALL ARRANGE PROGRESSIVE DISPOSAL OF EXCAVATED SURPLUS EARTH AS ACCUMULATION OF EXCAVATED EARTH SHALL NOT BE PERMITTED.HENCE CONTRACTOR SHALL DISPOSE OFF THE EXCAVATED EARTH GENERATED DURING EXECUTION OF WORK WHILE, IF PERMITTED, KEEPING THE SUFFICIENT QUANTITY OF GOOD EXCAVATED EARTH FOR BACKFILLING. ALSO, LEVELLING, COSOLIDATION ETC., REQUIRED TO BE DONE ON THE DISPOSED EARTH IN THE SAID AREA SHALL BE PERFORMED BY THE CONTRACTOR. RATES QUOTED SHALL BE INCLUSIVE OF ALL COST FACTORS. BHEL WILL NOT ENTERTAIN ANY CLAIM WHATSOEVER FOR COMPENSATION/ RE-IMBURSEMENT OF SUCH EXPENSES EXCEPT FOR THOSE SPECIFICALLY STATED. THE CONTRACTOR HAS TO PLAN CONCRETE WORK IN SUCH MANNER THAT GOOD EARTH AVAILABLE DURING EXCAVATION CAN BE EFFECTIVELY USED IN BACK FILLING DIRECTLY TO SAVE TIME AND TRANSPORT OUTSIDE.

3.5.4

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

ON COMPLETION OF WORK, ALL THE TEMPORARY WORKS SHALL BE DISMANTLED AND LEVELLED AND DEBRIS SHALL BE REMOVED AS PER INSTRUCTIONS OF BHEL BY THE CONTRACTOR AT HIS COST. IN THE EVENT OF HIS FAILURE TO DO SO, THE SAME WILL BE ARRANGED BY BHEL AND EXPENDITURE THEREOF WITH OVERHEADS WILL BE RECOVERED FROM THE CONTRACTOR. THE DECISION OF BHEL ENGINEER IN THIS REGARD IS FINAL.

3.6 AREA LIGHTING

3.6.1

CONTRACTOR SHALL ARRANGE ADEQUATE FLOODLIGHTS, HAND LAMPS AND AREA LIGHTING. PROVISION OF DISTRIBUTION LINES FOR LIGHTING FROM THE SINGLE POINT TO THE REQUIRED PLACE WITH PROPER DISTRIBUTION BOARDS, OBSERVING THE SAFETY RULES LAID DOWN BY THE ELECTRICAL AUTHORITIES OF THE STATE SHALL BE DONE BY THE CONTRACTOR INCLUDING ALL THE MATERIALS LIKE CABLES, FUSES, SWITCH BOARDS ETC.

3.7

CONTRACTOR HAS TO FORM TEMPORARY APPROACH ROAD FROM MAIN ROAD NEAR WORK SITE FOR TRANSPORTATION OF MATERIALS, CONCRETE ETC. NO SEPARATE PAYMENT SHALL BE MADE FOR THE SAME.

3.8.0 MATERIAL

3.8.1(A PROCUREMENT OF MATERIAL AND TESTING:

MATERIAL REQUIRED FOR THE ENTIRE JOB LIKE CEMENT, STEEL (BOTH REINFORCEMENT AND STRUCTURAL), SAND, AGGREGATES, THE CONTRACTOR. BHEL RESERVES THE RIGHT TO REJECT ANY MATERIAL NOT FOUND SATISFACTORY. CONTRACTOR SHALL PRODUCE MANUFACTURER'S TEST CERTIFICATE FOR STEEL (BOTH REINFORCEMENT AND STRUCTURAL) AND CEMENT FOR EVERY BATCH OF

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

MANUFACTURING ALONGWITH EACH CONSIGNMENT BROUGHT TO THE SITE. CEMENT SHALL BE PROCURED FROM FRESH STOCK ONLY. APART FROM THE ABOVE, IT SHALL BE THE RESPONSIBILITY OF CONTRACTOR TO GET THE TESTING OF CEMENT, STEEL OR ANY OTHER MATERIALS DONE FROM **OUTSIDE LABORATORY APPROVED BY MPPGCL/BHEL TO ASCERTAIN THE QUALITY IF INSISTED BY BHEL/BHEL'S CUSTOMER.** RATE QUOTED SHALL BE INCLUSIVE OF ALL SUCH CONTINGENCIES AND NO ADDITIONAL PAYMENT SHALL BE MADE ON THIS ACCOUNT. FOR THIS PURPOSE, SAMPLE SHALL BE COLLECTED AT SITE IN PRESENCE OF BHEL/BHEL CUSTOMER'S REPRESENTATIVE. THE VARIATION IN PRICE OF ALL THE PLANT MATERIALS SUPPLIED BY THE CONTRACTOR SHALL BE SUBJECT TO THE RELEVANT PRICE VARIATION CLAUSE.

3.8.1(B) PURCHASE PREFERENCE

REGARDING PURCHASE PREFERENCE TO BE GIVEN TO THE PUBLIC SECTOR/ ANY OTHER GOVERNMENT FOR AWARD OF WORK, THIS SHALL BE APPLICABLE AS PER GOVERNMENT DIRECTIVE IN FORCE AT THE TIME OF SUBMISSION OF OFFER.

3.8.2 FIELD TESTING EQUIPMENTS

APART FROM MAINTAINING QUALITY REQUIREMENT AS ALREADY SPECIFIED IN TENDER, CONTRACTOR SHALL ARRANGE HIS OWN TESTING LABORATORY ALONGWITH CALIBRATED TEST EQUIPMENTS FOR DAY TODAY WORK AT SITE. SPECIAL TESTING REQUIREMENTS OF TRIAL MIX FOR MIX DESIGN CAN BE TIED UP WITH REPUTED LOCAL TESTING LABORATORY/INSTITUTION. THE ARRANGEMENT TO BE CLEARLY INDICATED PRIOR TO START OF WORK.

OTHER RESPONSIBILITIES IN GENERAL

3.9.1

CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER USAGE OF THEIR MATERIALS LIKE CEMENT, STEEL, AND AGGREGATES

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

ETC. AS PER STANDARD REQUIREMENT OF IS CODES AND CONTROL THE WASTAGE WITHIN LIMIT. NO COMPENSATION SHALL BE MADE FOR ANY EXCESS CONSUMPTION UNDER ANY CIRCUMSTANCES.

3.9.2

CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY DELAY IN PROGRESS OF WORK DUE TO DELAY/SHORT SUPPLY OF MATERIAL TO BE PROCURED BY THEM FOR THIS JOB.

3.9.3

RUSTING OF STEEL SHOULD BE AVOIDED TO THE MAXIMUM EXTENT POSSIBLE WITHOUT HAMPERING THE CONTINUITY OF CONSTRUCTION/ERECTION. IN CASE RUSTING OF STEEL OCCURS RENDERING THE SAME UNUSABLE, THE CONTRACTOR SHALL REMAIN RESPONSIBLE TO MAKE GOOD THE LOSS AT HIS OWN COST.

3.9.4

AS-BUILT DRAWING: CONTRACTOR SHALL ARRANGE TO INCORPORATE ALL CHANGES, IN AFC DRAWINGS, MADE AS PER THE SITE REQUIREMENT ON COMPLETION OF WORK AND SUBMIT THE SAME TO BHEL FOR PREPARING FINAL AS-BUILT DRAWING. THIS SHALL FORM PART OF WORK AND RATES QUOTED SHALL BE INCLUSIVE OF THIS.

3.9.5

THE CONTRACTOR IN THE EVENT OF ENGAGING 10 OR MORE WORKMEN WILL OBTAIN INDEPENDENT LICENCE UNDER THE CONTRACT LABOUR (REGULATION AND ABOLITION) ACT 1970 FROM THE CONCERNED AUTHORITIES BASED ON THE CERTIFICATE (FORM-V) ISSUED BY THE PRINCIPAL EMPLOYER/CUSTOMER.

3.9.6

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE GATEPASS FOR ALL HIS EMPLOYEES, T&P ETC. NECESSARY COORDINATION WITH MPPGCL OFFICIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO

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

FOLLOW ALL THE PROCEDURES LAID DOWN BY MPPGCL FOR MAKING GATE PASSES.

3.9.7

BHEL/MPPGCL MAY INSIST UPON WITNESSING THE REGULAR PAYMENT TO THE LABOUR. THEY MAY ALSO LIKE TO VERIFY THE RELEVANT RECORDS FOR COMPLIANCE WITH STATUTORY REQUIREMENTS. CONTRACTOR SHALL ENABLE SUCH FACILITIES TO BHEL /MPPGCL

3.9.8

CONTRACTOR SHALL ALSO COMPLY WITH THE PROVISIONS OF ESI ACT IN VOGUE AND SUBMIT EVIDENCE THEREOF TO BHEL SITE INCHARGE. ALSO ALL OTHER EMPLOYEES BENEFITS TO BE BORNE BY THE CONTRACTOR AS PER THE LABOUR LAWS. CONTRACTOR SHALL PRODUCE NECESSARY CERTIFICATES TOWARDS THEIR COMPLIANCE WITH SUCH STATUTES AND PAYMENT OF ALL STATUTORY DUES.

3.9.9

CONTRACTOR SHALL ALSO COMPLY WITH THE REQUIREMENTS OF LOCAL AUTHORITIES/ PROJECT AUTHORITIES CALLING FOR POLICE VERIFICATION OF ANTECEDENTS OF THE WORKMEN, STAFF ETC.

3.9.10

WHERE PERMITTED, BY MPPGCL/BHEL, TO WORK BEYOND NORMAL WORKING HOURS, THE CONTRACTOR SHALL ARRANGE NECESSARY GATE PASSES.

Rate quoted shall be inclusive of all such contingencies and no additional payment shall be made on this account. For this purpose, sample shall be collected at site in presence of **BHEL/BHELcustomer's** representative

Bidders are requested to have pre-bid visit/ inspection of site to make them fully acquainted with the site situation & nature of job. No claim shall be entertained at later date on account of non-familiarization of site condition. Bidders may fix up their site visit in consultation with

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

construction manager BHEL site office SATPURA. Name, address & contact point of site is as below:

SHRI Y. M. BABU (CONSTRUCTION MANAGER)
BHEL SITE OFFICE – 2X250 MW STPS SATPURA

E-MAIL ID:ymbabu@bhelswr.co.in

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

A: TOOL & PLANTS

SN	DESCRIPTION	
1	(a) T &Ps for Civil works	
	SL	Major T&P items
	Qty	
	1.	Hydra (8 / 10 T Cap.)
	2.	Welding m/c
	3.	Grinding machine
	4.	Hand cutting set
	5.	DG set of 60 KVA
	6.	15t/20t tractor &trailer
	7.	Minibatching plant (5/10Cub.m./Hr.)
	8.	Conventional concrete mixer machine
	9.	Vibrators
	10.	Self priming Dewatering pump of various capacity (Diesel/Electric) From 3 HP to 12 HP
	11.	Curing / dewatering pump – 1.5 / 2 HP
	12.	JCB /Poclein with rock breaker attachment
	13.	Ply Shuttering board with adequate supporting structure – (Old steel shuttering plates will not be allowed). Scaffolding materials with clamps
	14.	Dumper
	15.	Reinforcement bending machine
	16.	Reinforcement cutting machine
	17.	Power driven earth rammer
	18.	Total Station
	19.	Auto level & staff
	20.	Rapid moisture meter
	21.	Mother oven
	22.	UTS for cube testing
	23.	Concrete Cube Moulds
	24.	Tippers
	25.	Water Tanker and Vibro Roller
	26.	Poles, Cables, Halogens, Bulbs Etc For Area Illumination
	27.	Computer (window Xp) with printing & CD writing facility
	28.	EQUIPMENT FOR BITUMINE TEST
	29.	LAB EQUIPMENT FOR COMPACTION TEST
	30.	Communication facilities – landline, WAN, mobile, fax etc.

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

SN	DESCRIPTION
	<p>(b) Civil Works - Field Quality Lab Equipments – (Optional): Bidders may have a tie-up with other agency with approval of BHEL for quality checks</p> <p>As per requirement</p> <p>Bidder must submit T&P deployment plan inclusive of above T&Ps as per format Annex – VII</p>

B: MEASURING AND MONITORING DEVICES (MMD):

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

NOTE:

This above list is only indicative and neither exhaustive nor limiting. Quantities indicated above are only the minimum required. Contractor shall deploy all necessary T&P to meet the schedules & as prescribed by BHEL engineer and required for completion of work.

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

BHEL WILL NOT PROVIDE ANY T & P's FOR THIS WORK

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VI: Time Schedule

6.1 TIME SCHEDULE & MOBILIZATION

6.1.1 INITIAL MOBILIZATION AND TENTATIVE SCHEDULE

Contractor shall reach site, make his site establishment and be ready to commence the work within two weeks from the date of fax Letter of Intent or as per directions of Construction Manager/ Project Manager of BHEL.

All bidders are requested to note that works fronts are available in all the areas specified in scope of work in parallel and hence successful bidder must mobilize their resources for working in all parallel fronts so as complete the entire work within the stipulated contract period.

The contractor has to subsequently augment his resources in such a manner that the entire works are completed within the contract period of **06 (Six) months** in a manner required by BHEL to match with the project completion and handing schedule.

THE OVERALL CONTRACT PERIOD SHALL OF 06 (Six) months.

6.1.2

In order to meet above schedule and other intermediate targets/activities as set by BHEL Engineer In charge at site, to meet customer requirements/project schedule, contractor shall arrange all necessary resources and work force in consultation with BHEL Construction Manager at site to undertake works concurrently in all possible parallel work fronts as already available.

Contractor shall note that individual milestones as above shall be achieved as per schedule furnished above. **The date of start of first excavation in Roads shall be reckoned as the start of contract period for this purpose, which ever started earlier.**

The contractor shall reach site and establish his site office and mobilize necessary resources well in advance of actual commencement of the contract time schedule as per directions of BHEL engineer in charge.

DATE OF START OF WORK SHALL BE THE DATE ON WHICH FIRST EXCAVATION IN ROADS SHALL BE RECKNOED AS START OF CONTRACT PERIOD FOR THIS PURPOSE, WHICHEVER STARTED EARLIER.

The contractor shall complete all the work in the scope of this contract within the contract period.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VII: TERMS OF PAYMENT

7.00 TERMS OF PAYMENT

7.0.1

The contractor shall submit his monthly on account bills with all the details required by BHEL on specified date every month covering progress of work in all respects and areas from the 25th of previous calendar month to 24th of the current month.

7.0.2

General conditions of contract shall be referred to as regards mode of payment, and measurement of the work completed.

7.0.3

Release of payment in each running bill will be restricted to **95% of the value of work admitted**, as per the percentage break-up for the stage of work completion stipulated vide clauses hereinafter.

The 5% retention amount shall be released as per GCC clause no. 2.22. The workmanship guarantee period for this contract shall be **12 months from the date of completion** of entire work as certified by BHEL

7.0.4

The payment for running bills will normally be released within around 30 days of submission of running bill with measurement sheets. Contractor shall make his own arrangement for making payment of impending labour wages and other dues in the meanwhile.

7.0.5

BHEL will release payment through **Electronic Fund Transfer (EFT)/RTGS**. In order to implement this system, the following details are to be furnished by the contractor pertaining to his bank accounts where proceeds will be transferred through **BHEL's banker**:

Name of the Company

Name of Bank

Name of Bank Branch

City/Place

Account Number

Account type

IFSC code of the Bank Branch

MICR Code of the Bank Branch

BHEL May Also Choose To Release Payment By Other Alternative Modes As Suitable.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VII: TERMS OF PAYMENT

7.0.6 Progressive Payment For Civil

The percentage of payment for progressive completion of work in various categories of work shall be as under:

7.0.7 Civil Work

100% of Item Rate on Pro-Rata Basis against Monthly RA Bills.

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

7.0.8 Extra/Additional Items Of Work:-

As Per GCC.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

8.0 TAXES, DUTIES, LEVIES (Consolidated Rev 03 dated 09/04/2013)

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.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

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 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.

SPECIAL CONDITIONS OF CONTRACT (SCC)
CHAPTER IX –DRAWINGS

FOLLOWING DRAWINGS ARE ENCLOSED WITH THE TENDER:-

SL.NO	DRG. NO	TITLE
1	PE-DG-292-603-C002 (2 Nos)	TYPICAL ROAD CROSS SECTION & JUNCTION DETAILS