



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

इण्डस्ट्रियल सिस्टम्स ग्रुप

INDUSTRIAL SYSTEMS GROUP

फोन/Phone : +91 80 22184090

फैक्स/Fax : +91 80 2356 2713

ई-मेल/E-mail: sv@bhelisg.com

प्रो. सी एन आर राव सर्कल

पी.बी.नं 1249, आईआईएससी पोस्ट

बैंगलूरु - 560 012

Prof. C N R Rao Circle

P.B. No.1249, IISc Post

Bengaluru-560 012

NOTICE INVITING TENDER

Ref : 77/11/6309/RSB

Date: 31-12-2011

Subject: Tender for SUPPLY OF CAST BASALT LINED MS ERW PIPES FOR 2X250MW GSECL, SIKKA TPS.

Tender Ref: 77/11/6309/RSB

Please submit your lowest quotation subject to our Terms & Conditions for the tender referred above. The following documents can be downloaded from Website www.bhelisg.com or www.bhel.com or <http://tenders.gov.in>

Sl.No.	Description	Document Ref.
01	NIT & Qualifying Criteria, Commercial Terms & Conditions etc.	Volume – 1
02	Technical Specifications, scope of supply etc.	Volume – 2
03	Price Bid Format	Volume – 3

**Senior Deputy General Manager
Materials Management (BG-1B)**



ISO-14001,
OHSAS 18001

पंजीकृत कार्यालय 'बीएचईएल हाउस' सिरि फोर्ट, नई दिल्ली – 110 049
Regd. Office: 'BHEL House' Siri Fort, New Delhi – 110 049





ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250 MW GSECL, SIKKA TPS.

CONTENT SHEET

VOL.-1

CONTENT SHEET OF VOL. - 1

SECTION	DESCRIPTION	PAGES
1	NIT AND QUALIFYING CRITERIA	2
2	COMMERCIAL TERMS & CONDITIONS(CTC)	2
3	DEVIATION FORMAT	2
4	SPECIAL INSTRUCTIONS TO BIDDERS	2
5	PBG FORMAT WITH ANNEXURE	5

SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2 X 250 MW GSECL, SIKKA
TPS

NIT & QUALIFYING CRITERIA

VOL.-1, SEC-1

NOTICE INVITING TENDER (NIT) & QUALIFYING CRITERIA

1	Tender inviting officer / Authority, Designation and Address.	Sr. Deputy General Manager /MM / BG 1B BHEL-ISG, Prof.CNR Rao Circle, IISc Post, Malleswaram, Bangalore- 560 012
2	Item Description	SUPPLY OF CAST BASALT MS ERW LINED PIPES FOR 2X250MW GSECL, SIKKA TPS.
3	Tender Reference no.	77/11/6309/RSB
4	Delivery period	2 months from the date of manufacturing clearance.
5	Due date, Time and place for submission of tender.	16-01-2012 Up to 02.00PM at BHEL-ISG Tender box placed at the Reception of ISG & EPD. BHEL-ISG, Prof CNR Rao Circle, IISc Post, Malleswaram, Bangalore- 560 012
6	Place, Date and Time of Technical Bid opening.	BHEL-ISG office. Techno-commercial offers will be opened at 03.00 PM on due date i.e. on 16-01-2012. in the presence of the vendors who choose to be present. Price bids of technically, commercially accepted and customer approved vendors will be opened subsequently and the date for the same shall be intimated to the bidders separately.
7.	Pre-Qualification Criteria of bidder.	<p>The bid is open for participation to those bidders who satisfy the following requirements:-</p> <p>1.1 Bidder should have designed, engineered, manufactured, supplied, erected, tested and commissioned minimum 1000 meters of cast basalt lined MSERW pipes for ash handling plant of thermal power stations for ash slurry conveying and these pipes should be in successful operation in India for a period of at least two (2) years in the preceding 5 years as on the date for submission of bid.</p> <p>1.2 Bidder should have assembly/ testing facilities in India and same shall be indicated in the offer.</p>



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2 X 250 MW GSECL, SIKKA
TPS

NIT & QUALIFYING CRITERIA

VOL.-1, SEC-1

		1.3 Bidder shall provide documentary evidence in support of his claim for having experience in design, manufacture, supply, erection, testing and commissioning of Cast Basalt lined MS ERW Pipes for Ash Handling Plants which are in operation as on the date of submission of bid.
8	Mode of Submission of tender	<p>The tender shall be submitted duly stamped & signed in two parts as below in separate sealed envelopes super-scribed with tender reference and due date.</p> <p>Part-1 : Techno-commercial bid containing Technical documents, Documents of Pre-Qualification Criteria, Commercial Terms & Conditions(CTC), Un-priced bid, Deviation format, etc.</p> <p>Part - 2 : Price bid</p> <p>The above two sealed envelopes should be put in another sealed cover. This outer cover should be super-scribed with the tender reference no., due date etc. and should reach us latest by 2-00 PM on due date.</p>

**COMMERCIAL TERMS & CONDITIONS FOR SUPPLY OF CAST BASALT LINED MS ERW PIPES FOR
2X250 MW, M/s GSECL, SIKKA TPS, UNIT 3 & 4.**

Vol.-1, Sec-2

Tender Reference No. 77/11/6309/RSB

Sl. No.	Clause	BHEL REQUIREMENT	SUPPLIER'S ACCEPTANCE / REMARKS
1.0	Price Basis	Firm for entire period of contract , FOR Site Basis, inclusive of all taxes, packing, forwarding and freight charges. Insurance by BHEL. Any new taxes/duties imposed by Government after placement of PO shall be reimbursed as per actuals on documentary evidence.	
2.0	Excise Duty / Custom Duty	Excise Duty/custom duty as applicable is payable extra at actuals. Percentage considered shall be indicated by the bidder in their offer.	
3.0	Sales / Other Taxes	To be included in the price. However, rate considered along with the amount included in the price to be indicated separately in the price bid. Sales tax shall be paid extra at actuals as per prevailing rate at the time of despatch. Vendor shall submit E1 form after receipt of "C" Form from BHEL .	
4.0	Freight	Lumpsum Freight Charges to be indicated in the price bid . This shall be paid on pro-rata basis against despatches and limited to the freight charges indicated in the price bid.	
5.0	Terms of Payment	For Supply :- (a) 90% direct payment against despatch documents and submission of invoice (original + 3 Copies). (b) Balance 10% direct payment against receipt of material at site. Invoice to be submitted with Receipted LR or Receipted Delivery Challan and all technical documents as per PO for claiming this payment.	
6.0	Delivery Period	2 (Two) months from the date of manufacturing clearance	
7.0	Liquidated Damages	Any delay in PO delivery will attract LD @0.5% of the order value per week of delay and prorata for a part of week subject to maximum of 5% of the total order value . Date of inspection call along with internal Test certificates will be taken as delivery date for LD purpose , provided the material is found ready and acceptable during inspection.	
8.0	Performance Bank Guarantee	PBG for 10% of total order value is to be submitted by the successful vendor and kept valid up to the guarantee period with an additional claim period of 3 months thereafter. This PBG is to submitted along with first invoice or earlier by the vendor from the list of BHEL Consortium Banks as per BHEL PBG Format enclosed.	
9.0	Inspection	Inspection shall be carried out by Customer/ Consultant / BHEL/ Third party as the case may be. Vendor to give minimum of 7 days notice for inspection along with internal test certificates. In case the items are not found ready after the inspection call , then the expenses incurred by customer/BHEL for travel, stay etc shall be recovered from the suppliers/vendors bill.	
10.0	Guarantee Period	12 months from the date of Commissioning or 24 months from the date of last dispatch which ever is earlier.	
11.0	Transit Insurance	By BHEL. Advance intimation with dispatch details to be given by the supplier to the underwriter at the time of dispatch with a copy to BHEL.	
12.0	Drawing Submission	Drawings/Data sheet and QAP shall be submitted by the Supplier within one week of PO, for obtaining approval from customer/consultant/BHEL. Drawing approval shall be accorded within two weeks there after.	
13.0	Validity of offer	90 Days from the date of Techno- commercial bid opening.	
14.0	Risk Purchase	In case of default/late delivery, purchaser reserves the right to make alternate arrangement for procurement at suppliers risk and cost.	

Sl. No.	Clause	BHEL REQUIREMENT	SUPPLIER'S ACCEPTANCE / REMARKS
15.0	Arbitration	Subject to Bangalore Jurisdiction only, based on the Indian Arbitration & Conciliation Act 1996 with latest amendments if any.	
16.0	Quantity Variation	Price quoted by the Vendor shall be valid for ordering additional quantities upto 25% within delivery period of PO.	
17.0	Consignee Address	Will be intimated later.	
18.0	Contract No of BHEL	IS-1-07-2006	
19.0	Reverse Auction	BHEL reserves the right to go in for Reverse Auction instead of opening the submitted sealed price bid, which will be decided after techno-commercial evaluation and vendor approval from customer. In case the reverse auction couldnot be conducted due to any reasons, BHEL reserves the right to open the sealed price bids in public and finalise the placement of order accordingly. Non acceptance of this clause by the vendor shall be liable for rejection of their offer.	
20.0	ECS Payment	Payment will be made by e-payment only and for which the vendors are to provide the following information along with their offers in their letter head dully signed.i) Bank name and address ii) bank phone no iii) bank IFSC code (NEFT)iv) Bank account no v) PAN no vi)Service tax no vii) TIN no viii) E mail ID.	
21.0	Bills Submission	1) All invoices against our order are required to be sent in a sealed envelope addressed to BHEL-ISG VENDOR BILLS BOX, BHEL INDUSTRIAL SYSTEMS GROUP, OPP IISc, PROF.C.N.R. RAO CIRCLE, MALLESWARAM, BANGALORE - 560 012.The envelope shall be super-scribed with Project Name/PO.No and the bill/Invoice Numbers & Contact person. 2) Bills/Invoices which are brought personally by vendors to ISG are to be dropped in the "BHEL-ISG Vendor Bill Box" kept near Tender Box at the reception office.	
22.0	Rejection of Offer	BHEL reserves the right to reject the offer, in case the bidders' past performance in any of the BHEL's previous contracts is not found satisfactory.	
23.0	Banned Suppliers / Contractors in BHEL	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 the banned firms is available on BHEL web site www.bhel.com.	
24.0	Price bid opening	Price bids of technically and commercially qualified and customer approved vendors only shall be opened for evaluation.	
i)	Note: All the clauses of the above format should be filled and submitted with the Techno Commercial Bid (Part-1). The filled in BHEL Commercial terms & Conditions format submitted with technical bid responding to all the clauses duly signed with seal only shall be considered. Any other Commercial terms & conditions of the bidder entered else where in their offer shall not be considered and are liable for rejection.		

Signature of the bidder with Seal & Date



ISG
BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250 MW GSECL SIKKA
TPS.**

DEVIATION FORMAT

Vol.-1, Sec-3

DEVIATION FORMAT

1.1 TECHNICAL

Following are the DEVIATIONS from Enquiry Specifications :

TECHNICAL SPECIFICATIONS				
Sl. No.	Page No.	Clause No.	Clause	Deviation

We confirm that all other clauses of Technical Specifications are fully acceptable.

SIGNATURE OF BIDDER WITH SEAL



ISG
BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250 MW GSECL SIKKA
TPS.**

DEVIATION FORMAT

Vol.-1, Sec-3

1.2 **COMMERCIAL TERMS & CONDITIONS**

Following are the DEVIATIONS from enquiry Terms & Conditions

COMMERCIAL TERMS & CONDITIONS				
Sl. No.	Page No.	Clause No.	Clause	Deviation

We confirm that all other clauses of Commercial terms & conditions are fully acceptable.

SIGNATURE OF BIDDER WITH SEAL



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250MW GSECL, SIKKA TPS.**

(3) Special Instructions to Bidders

**Volume-1
Section-4**

SPECIAL INSTRUCTIONS TO BIDDERS

1. Offer should conform to our Technical Specification, Commercial Terms & Conditions (CTC). Any deviation on Technical specification and Commercial Terms & Conditions shall be explicitly highlighted in the Deviation Format enclosed. In case of "No Deviation", the Bidder should write "No Deviation" in the Deviation Format (both in Technical and Commercial Terms & Conditions) and submit the same with Techno-Commercial Bid (Part-1).
2. Acceptance/Remarks Column of BHEL CTC should be filled against all CTC Clauses, duly Signed, Stamped and submitted with Techno-Commercial Bid (Part-1). The filled in BHEL CTC format submitted with technical bid responding to all the clauses duly signed with seal **only shall be considered**. Any other Commercial terms & conditions (CTC) of bidders entered else where in their offer shall not be considered and are liable for rejection.
3. Un-priced price bid format to be filled and submitted along with techno-commercial bid (part-1) indicating "Quoted" against the respective item/column duly signed and stamped. Un Priced bid format not complied with the above shall be liable for rejection.
4. All prices should be quoted both in figures & words. In the event of discrepancy between the figures and words in the Price Bid, the amount entered in WORDS would be taken into consideration for evaluation and finalisation of the order.
5. The Tender shall be submitted in **Two parts** as follows, in separate sealed envelopes super- scribed with Tender Reference and Due date.

PART-1 : Technical documents , Documents of Pre-Qualification Criteria, Commercial Terms & conditions, Deviation Format , Un-priced price bid format etc.

PART-2 : Price Bid

The above **Two sealed** envelopes should be put in another cover. This outer cover should be super-scribed with the Tender Reference Due Date etc. and should reach us latest by 2-00 PM on the due date.



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250MW GSECL, SIKKA TPS.**

(3) Special Instructions to Bidders

**Volume-1
Section-4**

6. BHEL reserves the right to extend the due date for submission of tender without assigning any reasons.
7. Offers not complied with enquiry requirement shall be liable for rejection.
8. All the pages of Tender documents shall be duly signed, stamped and submitted along with offer as a token of Acceptance.
9. The Rates quoted should be valid for 90 days from the date of opening of Techno-Commercial Bid .
10. Tender shall be deposited in the BHEL-ISG Tender box located at the Reception of BHEL, Malleshwaram complex and tender opening will be done at the Reception of ISG entrance at 3.00 pm on due date.
11. Late tenders shall not be accepted.
12. Price bids of technically and commercially qualified vendors only shall be opened for evaluation and finalisation of tender.
13. BHEL reserves the right NOT TO ACCEPT THE LOWEST PRICE quoted for awarding the order without assigning any reasons.



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250MW GSECL, SIKKA TPS.**

PBG FORMAT WITH ANNEUXRE

**Volume-1
Section-5**

(To be stamped in accordance with Stamp Act)

PERFORMANCE BANK GUARANTEE

This deed of Guarantee made this _____ day of _____ Two Thousand _____ between _____ (Bank Name & Address) (hereinafter called "THE GUARANTOR" (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) of the ONE PART and Bharat Heavy Electricals Limited (a Government of India Undertaking), a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort, New Delhi 110 049, through its Unit / Division at ISG, Bangalore (hereinafter called "THE COMPANY") (which expression shall unless repugnant to the context or meaning thereof be deemed to include its successors and assigns) of the OTHER PART.

WHEREAS M/s _____ (Vendor Company name) (hereinafter referred to as the "SUPPLIER / CONTRACTOR") have entered into a contract No. _____ dated _____ (hereinafter called the "CONTRACT" for supply / construction of _____ with the COMPANY.

AND WHEREAS the CONTRACT inter-alia provides that the CONTRACTOR / SUPPLIER shall furnish to the COMPANY a sum of Rs, _____ (Rupees _____ only) towards security deposit for due and faithful performance of the CONTRACT in the form and manner specified therein.

AND WHEREAS the CONTRACTOR / SUPPLIER has approached the GUARANTOR and in consideration of the arrangement arrived at between the CONTRACTOR / SUPPLIER and the GUARANTOR, the GUARANTOR has agreed to give the Guarantee as hereinafter mentioned in favour of the COMPANY.

NOW THIS DEED WITNESSESS AS FOLLOWS –

1. The Guarantee do hereby guarantee to the COMPANY the due and faithful performance, observance or discharge of the CONTRACT by the CONTRACTOR / SUPPLIER and further unconditionally and irrevocably undertake to pay to the COMPANY without demur and merely on a demand, to the extent of Rs. _____ (Rupees _____ only) and claim In made by the COMPANY on them for any loss, damage, costs, charges and expenses caused to or suffered by the COMPANY by reason of the CONTRACTOR / SUPPLIER making



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
 LINED MS ERW PIPES FOR
 2X250MW GSECL, SIKKA TPS.**

PBG FORMAT WITH ANNEUXRE

**Volume-1
 Section-5**

- any default in the performance, observance or discharge of the terms, conditions, stipulations or undertakings or any one of them as contained in the CONTRACT.
2. The decision of the COMPANY whether any default has occurred or has been committed by the the CONTRACTOR / SUPPLIER in the performance, observance or discharge of any of the terms, conditions, stipulations or undertakings or any one of them as contained in the CONTRACT and / or as to the extent of loss or damage costs. Charges and expenses caused to or suffered by the COMPANY by reason of the CONTRACTOR / SUPPLIER making any default in the performance, observance or discharge of any of the terms, conditions, stipulations or undertakings or any one of them shall be conclusive and binding on the GUARANTOR, irrespective of the fact whether the CONTRACTOR / SUPPLIER admits or denies the default or questions the correctness of any demand made by the COMPANY in any Court, Tribunal or Arbitration Proceedings or before any other Authority

 3. The COMPANY shall have the fullest liberty without affecting in any way the liability of the GUARNATOR under this Guarantee from time to time to vary any of the terms and conditions of the CONTRACT or extend time of performance by the CONTRACTOR / SUPPLIER or to postpone for any time and from time to time any of the powers exercisable by it against the said CONTRACTOR / SUPPLIER and either to enforce or forbear from enforcing any of the said terms and conditions governing the said CONTRACT or the advance or securities available to the COMPANY and the GUARANTOR shall not be released from its liability under these presents by any exercise by the COMPANY of the liberty with reference to the matters aforesaid or by reason of time being given to the CONTRACTOR / SUPPLIER or any other forbearance, act or omission on the part of the COMPANY or any indulgence by the COMPANY to the said CONTRACTOR / SUPPLIER or of any other matter or thing whatsoever which under the law relating to sureties, would, but for this provision have the effect of so releasing the GUARANTOR from its liability under this GUARANTEE.

 4. The GUARANTOR further agree that the GUARANTEE herein contained shall remain in full force and effect during the period that would be taken for the performance of the CONTRACT and its claims satisfied of discharged and till _____ certifies that the terms and conditions of the CONTRACT have been fully and properly carried out by the CONTRACTOR / SUPPLIER and accordingly discharges this GUARANTEE subject, however, that the COMPANY shall have no claim under this GUARANTEE after ____ years from the date of completion of the CONTRACT, as the case may be, unless a notice of the claim under this GUARANTEE has been served on the GUARANTOR before the expiry of the said period in which case the same shall be enforceable against the



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250MW GSECL, SIKKA TPS.**

PBG FORMAT WITH ANNEUXRE

**Volume-1
Section-5**

GUARANTOR notwithstanding the fact that the same is enforced after the expiry of the said period.

5. The GUARANTOR undertake not to revoke this GUARANTEE during this period it is in force except with the previous consent of the COMPANY in writing, and agree that any liquidation or winding up or dissolution or any change in the constitution of the CONTRACTOR / SUPPLIER or the GUARANTOR shall not discharge the GUARANTOR's liability hereunder.
6. It shall not be necessary for the COMPANY to proceed against the CONTRACTOR before proceeding against the GUARANTOR and the GUARANTEE herein contained shall be enforceable against them notwithstanding any security, which the COMPANY may have obtained or obtain from the CONTRACTOR / SUPPLIER shall, at the time when proceedings are taken against the GUARANTOR hereunder be outstanding or unrealized.
7. The GUARANTOR hereby declares that it has power to execute this GUARANTEE under its Memorandum and Articles of Association and the executant has full powers to do so on its behalf under the Power of Attorney dated _____ granted to him by the proper authorities of the GUARANTOR.

IN WITNESS whereof _____ (Bank Name & Address) and Bharat Heavy Electricals Limited, have hereunto set and subscribed their respective hands the day, month and year first above written.

WITNESS :

1

2

Signed for and on behalf of the BANK



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250MW GSECL, SIKKA TPS.**

PBG FORMAT WITH ANNEUXRE

**Volume-1
Section-5**

"ANNEXURE TO PBG"

PERFORMANCE BANK GUARANTEE SUBMISSION – GUIDELINES

Performance Bank Guarantee is to be submitted as per following guidelines :

01	List of BHEL consortium Bank Names are enclosed (29 Banks). Bank guarantees of BHEL consortium banks are only acceptable.
02	In case of Bank Guarantees issued by non-consortium PSU banks the same are to be enforceable in Bangalore.
03	In case BGs issued by Foreign Banks the same may be confirmed by our consortium bank in India.
04	BGs to be submitted should be sent to BHEL-ISG Attn: DGM/MM/BG-IB directly by the issuing bank under Registered Post (A.D). On receipt of the PBG the same will be preliminarily checked by the receiving officer and in case of any corrections PBG will be returned to the issuing Bank for necessary action.
05	Bank Guarantee to be submitted in the prescribed format enclosed and shall be same verbatim as per the format. Bank Guarantee shall be submitted on right value of stamp paper and for correct value of contract.
06	Performance Bank Guarantee shall be extended within the expiry dates wherever activities as per contract are not completed in all respects.
07	In case of any contract amendment during execution of the contract enhancing value of the contract the PBG value shall be enhanced accordingly. Validity of PBG shall be as per commercial terms and conditions of the tender.



ISG BANGALORE

PROJECT:
2 x 250 MW, GSECL, Sikka TPS



**SUPPLY OF CAST BASALT
LINED MS ERW PIPES FOR
2X250MW GSECL, SIKKA TPS.**

PBG FORMAT WITH ANNEUXRE

**Volume-1
Section-5**

LIST OF CONSORTIUM BANKS

- 1 STATE BANK OF INDIA
- 2 PUNJAB NATIONAL BANK
- 3 HDFC BANK
- 4 SYNDICATE BANK
- 5 CANARA BANK
- 6 INDIAN BANK
- 7 ST. BANK OF HYDERABAD
- 8 ICICI BANK
- 9 STANDARD CHARTERED BANK
- 10 UCO BANK
- 11 KOTAK MAHINDRA
- 12 ORIENTAL BANK OF COMMERCE
- 13 STATE BANK OF TRAVANCORE
- 14 CENTRAL BANK
- 15 IDBI BANK
- 16 FEDERAL BANK
- 17 HSBC LTD
- 18 DEUTSCHE BANK
- 19 CORPORATION BANK
- 20 CITI BANK
- 21 BANK OF BARODA
- 22 ABN AMRO BANK
- 23 UNITED BANK OF INDIA
- 24 VIJAYA BANK
- 25 UNION BANK OF INDIA
- 26 PUNJAB & SIND BANK
- 27 ANDHRA BANK
- 28 BANK OF INDIA
- 29 AXIS BANK



BHEL-ISC
BANGALORE

GSECL 2X250 MW TPP SIKKA,
EXTENSION UNITS 3 & 4
ENQUIRY SPECIFICATIONS FOR CAST
BASALT LINED PIPES AND FITTINGS

SPECIFICATION NO.
IS-1-07-2006/A004

ENQUIRY NO.
77/11/6309/RSB

VOLUME - 2


GESCL 2X250 MW TPP SIKKA EXTENSION UNIT 3 & 4

CUSTOMER CONSULTANT: TCE CONSULTING ENGINEERS LIMITED, BANGALORE

ENQUIRY SPECIFICATIONS FOR CAST BASALT LINED MS ERW PIPES
AND FITTINGS



BHARAT HEAVY ELECTRICALS LIMITED
INDUSTRIAL SYSTEMS GROUP
BANGALORE

 BHEL-ISG BANGALORE	GSECL 2X250 MW TPP SIKKA, EXTENSION UNITS 3 & 4 ENQUIRY SPECIFICATIONS FOR CAST BASALT LINED PIPES AND FITTINGS	SPECIFICATION NO. IS-1-07-2006/A004 ENQUIRY NO. 77/11/6309/RSB
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CONTENTS

Sl.No.	DESCRIPTION	SHEET No.
1.	PROJECT INFORMATION	3- Of 07
2.	SCOPE OF SUPPLY	5- Of 07
3.	INSPECTION AND TESTING	6 Of 07
4.	TECHNICAL INPUTS REQUIRED FROM SUPPLIER	6 Of 07
5.	DELIVERY CONDITION	7 Of 07



BHEL-ISG
BANGALORE


GSECL 2X250 MW TPP SIKKA,
EXTENSION UNITS 3 & 4
ENQUIRY SPECIFICATIONS FOR CAST
BASALT LINED PIPES AND FITTINGS

SPECIFICATION NO.
IS-1-07-2006/A004

ENQUIRY NO.
77/11/6309/RSB

M1.0 PROJECT DATA

1	Owner/Purchaser (or customer)	GUJRAT STATE ELECTRICITY CORPORATION LIMITED (GSECL)
2	Owner's Consultant	TCE Consulting Engineers Limited, Bangalore.
3	Project Title	2X250MW Imported Coal Based TPP Sikka Extension Unit # 3 & 4
4	Project location	Sikka, Distt: Jamnagar, Gujrat
6	Transport facilities	State Highway (SH-25)
7	a) Nearest Railway station /Guage b) Name of Railway	Okha /Broad gauge Western Railway
8	Nearest Harbour	Okha and Vadinar
9	Ambient Air Temperature	5-50 Deg Centigrade
10	a) Maximum dry bulb temperature with corresponding relative humidity b) Design temperature for electrical equipment/devices	50 degree C (corresponding RH figure not available) 50 degree C
11	Maximum relative humidity	82%
12	Rain Fall a) Annual average b) Maximum Intensity sustained for 24 hrs. c) Period of rain fall	500mm 75mm June -October

 BHEL-ISC BANGALORE	<p align="center">GSECL 2X250 MW TPP SIKKA, EXTENSION UNITS 3 & 4 ENQUIRY SPECIFICATIONS FOR CAST BASALT LINED PIPES AND FITTINGS</p>	<p>SPECIFICATION NO. IS-1-07-2006/A004</p> <p>ENQUIRY NO. 77/11/6309/RSB</p>
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1.01.00 PROJECT


Sikka thermal power project consists of two stages. Under stage-I, two generating units each of 120 MW capacities are in operation. Under extension unit-3&4, 2 no. generating units each of 250 MW capacity are proposed to be added along with their auxiliaries and other facilities.

1.02.00 LOCATION

The site is located 32 kms from Jamnagar town, Village Sikka is in district Jamnagar of Gujarat. The site is connected to State Highway (SH-25) by a 5 Kms long all weather road through Sikka village.

Jamnagar – Okha broad gauge section of Western railway is passing through this area at a distance of about 12 kms. from Sikka. There is a 14 Kms. long railway spur connecting Sikka from Kanalus Junction, which is connected to Viramgam and Okha. The length of railway access spur to Sikka TPS is only one km. Okha and Vadinar Port is the nearby harbours.

ISSUED BY	:	BG-1B	REV	:	0	DATE	:	24.12.2011	SHEET	:	4 of 7
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 BHEL-LOGO BANGALORE	GSECL 2X250 MW TPP SIKKA, EXTENSION UNITS 3 & 4 ENQUIRY SPECIFICATIONS FOR CAST BASALT LINED PIPES AND FITTINGS	SPECIFICATION NO. IS-1-07-2006/A004 ENQUIRY NO. 77/11/6309/RSB
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2.0 SCOPE OF SUPPLY


350 NB AND 300 NB CAST BASALT LINED ASH SLURRY PIPES, BENDS AND FITTINGS WITH REQUIRED FLANGES FOR ASH HANDLING SYSTEM for the above mentioned project.

All pipes shall be of tested quality as per IS-3589

- a) The raw material shall also be of Tested quality.
- b) These pipes shall be used for conveying Ash Slurry with Sea water application.
- c) Ash Slurry disposal pipe shall be 300 NB and 350 NB cast basalt pipes. The casing MS ERW steel pipe confirming to IS 3589, 6 .0 mm wall thickness. Cast Basalt lining thickness shall be 20 mm. Cement Mortar between pipe and cast basalt pipe may be 8 -10 mm thickness.
- d) Fittings shall be 20 mm thick Cast basalt MS fittings (MS shell of min 6 mm thickness)
- e) Cast Basalt:-
 - i) Hardness=8 mhos
 - ii) Bending Strength= Minimum 300 Kg/cm²
 - iii) Compressive strength : Minimum 4500 Kg/cm²
- f) Type of Joints:-
 - i) Cast Basalt Fittings: Sleeve type coupling joint at an interval of approximately 40 meters in straight length.
 - ii) flanged joints at fittings, bends, Y – pieces etc.
 - iii) Flanged joints in pipe at every 12 mtrs.

Sl no.	Description	Qty.	Application
1.	Supply of 350 NB Ash Slurry disposal pipe: i) Casing - MS ERW pipe of 406 mm OD conforming to IS 3589, 6.0 mm wall thickness. ii) Cast Basalt lining - 20 mm thick, with Cement Mortar of 8 - 10 mm thickness. iii) REQUIRED ID FOR SLURRY FLOW SHALL BE 336 mm.	1020 Mtrs	Ash slurry Disposal
2.	Bends of 90 deg., 120 deg., 135 deg., and 150 deg. And 'Y' – pieces for pipes in s. no. 3 above with bend radius not less than 3D (D= I D of the pipe) for pipes in sl. no. 1 above.	8 nos. of each type	Ash slurry Disposal
3.	Supply of 300 NB Ash Slurry disposal pipe: i) Casing - MS ERW pipe of 373 mm OD conforming to IS 3589, 6.0 mm wall thickness. ii) Cast Basalt lining - 20 mm thick, with Cement Mortar of 8 - 10 mm thickness. iii) REQUIRED ID FOR SLURRY FLOW SHALL BE 303 mm.	1020 Mtrs	Ash slurry Disposal

ISSUED BY	:	BG-1B	REV	:	0	DATE	:	24.12.2011	SHEET	:	5 of 7
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 BHEL-ISC BANGALORE	GSECL 2X250 MW TPP SIKKA, EXTENSION UNITS 3 & 4 ENQUIRY SPECIFICATIONS FOR CAST BASALT LINED PIPES AND FITTINGS	SPECIFICATION NO. IS-1-07-2006/A004 ENQUIRY NO. 77/11/6309/RSB
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4.	Bends of 90 deg., 120 deg., 135 deg., and 150 deg. And 'Y' – pieces for the pipes in s. no. 3 above with bend radius not less than 3D (D= I D of the pipe) for pipes in sl. no. 3 above.	8 nos. of each type	Ash slurry Disposal
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Note: 1. Quantity indicated above is approximate length; final length will be furnished during order time.

2. The quantities of different types of bends and fittings are approximate and actual quantity should be furnished during ordering time.

3.0 INSPECTIONS & TESTING

Shop Testing:

- Cast Basalt liners shall be tested for Chemical & Mechanical properties.
- Basalt liners shall be examined visually for detection of Cracks & defects.
- Level difference between two cast basalt liners shall be minimum.
- The Hydraulic pressure testing at shop for M S ERW pipe shall be as per IS: 3589 with no leakages.


The material inspection, testing & certificates in accordance with IS: 3589 shall be furnished in soft copy & 4 sets of hard copies before inspection of the Pipes at manufacturer's works.

These pipes will be inspected and tested as per IS-3589 by GSECL/ BHEL/ TCE representatives at manufacturer's works.

4.0 TECHNICAL INPUTS TO BE FURNISHED/ CONFIRMED ALONG WITH THE OFFER

- Manufacturer QAP shall be submitted for approval.
- Sizes (diameter, thickness, length of each pipe), quantity & weight per meter of the offered Pipes are to be furnished.
- Testing pressure shall be indicated in the offer.

ISSUED BY :	BG-1B		REV :	0		DATE :	24.12.2011		SHEET : 6 of 7
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 BHEL-ISG BANGALORE	GSECL 2X250 MW TPP SIKKA, EXTENSION UNITS 3 & 4 ENQUIRY SPECIFICATIONS FOR CAST BASALT LINED PIPES AND FITTINGS	SPECIFICATION NO. IS-1-07-2006/A004 ENQUIRY NO. 77/11/6309/RSB
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5.0 DELIVERY CONDITION:

- a) The pipes, bends and fittings shall be supplied with lifting hooks welded at suitable locations.
- b) Rust preventive coating of minimum 30 DFT shall be applied on the pipes by the successful bidder before dispatch.
- c) These pipes shall be supplied at lengths of min 5.0 to 6 meters.

ISSUED BY :	BG-1B		REV :	0		DATE :	24.12.2011		SHEET :	7 of 7
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VOLUME - 3										
FORMAT FOR AHP- 2 x 250 MW SikkaTPP UNIT # 3 & 4										
PROJECT - GSECL,2 x 250 MW SikkaTPP UNIT # 3 & 4					REV.-00					
ITEM - CAST BASALT LINED MS ERW PIPES AND FITTINGS										
ENQUIRY NO:- 77/11/6309/RSB					ALL PRICES-IN INDIAN					
RUPEES										
SL. NO.	Description	UNIT	QUANTITY	UNIT RATE	TOTAL EX WORKS PRICE	CST	SERVICE TAX INCLUDING CESS	VAT as applicable	FREIGHT CHARGES	TOTAL FOR SITE PRICE
A	SUPPLY:									
A1	Design, engineering, manufacture, testing, inspection at manufacturer's works and supply of 350 NB cast basalt lined MS ERW pipes (OD 406 mm and ID 336 mm) with required flanges as per enquiry specification.	METRES	1020							
A2	90 deg. Bend for 350 NB cast basalt lined MS ERW pipes (OD 406 mm and ID 336 mm) with required flanges.	Nos.	8							
A3	120 deg. Bend for 350 NB cast basalt lined MS ERW pipes (OD 406 mm and ID 336 mm) with required flanges.	Nos.	8							
A4	135 deg. Bend for 350 NB cast basalt lined MS ERW pipes (OD 406 mm and ID 336 mm) with required flanges.	Nos.	8							
A5	150 deg. Bend for 350 NB cast basalt lined MS ERW pipes (OD 406 mm and ID 336 mm) with required flanges.	Nos.	8							
A6	'Y' pieces for 350 NB cast basalt lined MS ERW pipes (OD 406 mm and ID 336 mm) with required flanges.	Nos.	8							
	Sub Total A									

SL. NO.	Description	UNIT	QUANTITY	UNIT RATE	TOTAL EX WORKS PRICE	CST	SERVICE TAX INCLUDING CESS	VAT as applicable	FREIGHT CHARGES	TOTAL FOR SITE PRICE
B	SUPPLY:									
B1	Design, engineering, manufacture, testing, inspection at manufacturer's works and supply of 300 NB cast basalt lined MS ERW pipes (OD 373 mm and ID 303 mm) with required flanges as per enquiry specification.	METRES	1020							
B2	90 deg. Bend for 300 NB cast basalt lined MS ERW pipes (OD 373 mm and ID 303 mm) with required flanges.	Nos.	8							
B3	120 deg. Bend for 300 NB cast basalt lined MS ERW pipes (OD 373 mm and ID 303 mm) with required flanges.	Nos.	8							
B4	135 deg. Bend for 300 NB cast basalt lined MS ERW pipes (OD 373 mm and ID 303 mm) with required flanges.	Nos.	8							
B5	150 deg. Bend for 300 NB cast basalt lined MS ERW pipes (OD 373 mm and ID 303 mm) with required flanges.	Nos.	8							
B6	'Y' pieces for 300 NB cast basalt lined MS ERW pipes (OD 373 mm and ID 303 mm) with required flanges.	Nos.	8							
	Sub Total B									
	GRAND TOTAL (A+B)									
NOTE:										
1- Above base offer is for the scope of supply of cast basalt lined MS ERW pipes and fittings as per BHEL enquiry specification.										
2- The quantities of bends and fittings are tentative only. Bidder shall quote unit rate for each type of fittings. The price for 8 no. of each type of fittings shall be used for price comparison purpose. However, the actual quantity of required type of fittings only shall be ordered during detail engineering and payment shall be on actual quantity supplied.										
3 - Price to be indicated in Price format - Rev 00 only and it should be sent in sealed envelop to Sr. DGM BG -1B/ MM. Unpriced price format duly signed with seal to be sent to Project Engineering and MM Group by Fax/ e-mail confirming that price bid as per price format for all items with Taxes, Duties, Freight etc.										
4 - In case of discrepancy between 'prices in figures' and 'price in words' in the price format, the price entered in words shall prevail and shall be taken for tender evaluation and finalization of the award of work.										
5 - Above price is inclusive for all contractual obligation including submission of drawings,documents,erection manual etc in required number of hard and soft copies as per enquiry specification,vendor offers and all recorded discussions etc.										
							Signature of the Authorised Person of the bidder company Seal			
	Date:									
	Place:									