



Bharat Heavy Electricals Ltd.,
Electronics Division,
Mysore Road, Bangalore – 560 026

Tender Document for " Supply and E&C Support services for Foundation Field Bus System for NTPC Darlipali & NTPC North Karanpura Project (Ref. NKR0000117)

TENDER REFERENCE DOC	NKR0000117
TENDER DOCUMENT AVAILABLE FROM	Refer eprocurement system website
LAST DATE AND TIME FOR SUBMISSION OF TENDER	Refer eprocurement system website
DATE AND TIME FOR TENDER OPENING	Refer eprocurement system website
SUBMISSION OF TENDER	Bidder to submit tender in E-procurement site : https://bheleps.buyjunction.in/ . Refer instructions give in tender document for offer submission of bid in E-procurement site. Service provider: M-junction

This Tender Document Contains documents as per below index:

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Contact Person at BHEL:

SAVITHA B - DGM/PURCHASE(CE-MM-PR) Ph: 080-26998694 Email - savitha@bheledn.co.in

NILMANI KUMAR , ENGINEER/PURCHASE(CE-MM-PR) Ph: 080-26998663, Email - nilmanikumar@bheledn.co.in

REQUEST FOR QUOTATION

BHARAT HEAVY ELECTRICALS LIMITED
Electronics Division
PB No. 2606, Mysore Road Bangalore - 560026
INDIA

RFQ NUMBER: NKR0000117
RFQ DATE: REFER EPROCUREMENT SYSTEM
RFQ DUE DATE: REFER EPROCUREMENT SYSTEM

(for all correspondence)
Purchase Executive : Nilmani Kumar
Phone : 26998663
Fax : 00918026989227
E-mail: nilmanikumar@bheledn.co.in

Sl No.	Material Code	Description	Qty	Unit
1	PR0460000600	FOUNDATION FIELD BUS SYSTEM FOR METAL TEMP (SH-RH-SEPARATOR) AS PER SPEC PS/415/2282 PROJECT : NORTH KARANPURA 3 x 660MW Unit - 1	1	Set
2	PR0460000601	FOUNDATION FIELD BUS SYSTEM FOR METAL TEMP (SH-RH-SEPARATOR) AS PER SPEC PS/415/2282 PROJECT : NORTH KARANPURA 3 x 660MW Unit 2	1	Set
3	PR0460000602	FOUNDATION FIELD BUS SYSTEM FOR METAL TEMP (SH-RH-SEPARATOR) AS PER SPEC PS/415/2282 PROJECT : NORTH KARANPURA 3 x 660MW Unit 3	1	Set
4	PR0900007810	MANDATORY SPARES FOR FOUNDATION FIELD BUS SYSTEM AS PER PS/415/2282 FOR NORTH KARANPURA PROJECT	1	Set
5	PR0460000419	FOUNDATION FIELD BUS SYSTEM AS PER PS/410/2028 FOR DARLIPALI PROJECT	1	Set
6	PR0460000419	FOUNDATION FIELD BUS SYSTEM AS PER PS/410/2028 FOR DARLIPALI PROJECT	1	Set
7	PR0460000400	MANDATORY SPARE FOR FOUNDATION FIELD BUS SYSTEM. AS PER PS/410/2028 FOR DARLIPALI PROJECT	1	Set

- i). This is only RFQ not an order.
- ii). In all correspondence quote RFQ No. & due date.
- iii). Quotation should remain valid for a minimum period of 120 days from due date.
- iv). In case of non-receipt of Quotation or regret letter for 3 consecutive RFQs you are liable to be removed from our vendors list.
- v). Excise Chapter Heading should be mentioned for all items where VAT is applicable .



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**DARLIPALI STPP STAGE-I
(2 X 800MW)**

DP-FF-676-410-003

REV. NO. 00

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***PRE-QUALIFICATIONS REQUIREMENT
FOR
PURCHASE SPECIFICATION PS4102028
FOUNDATION FIELD BUS BASED I/O SYSTEM***

PROJECT : DARLIPALI STPP STAGE-I (2 X 800MW)
CUSTOMER : M/s NTPC LTD.

CHECKED BY

MUKESH KUMAR

APPROVED BY

S B BANIK

PREPARED

DINAKARA P

ISSUED

410

ENGG

DATE

05/05/2016



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DARLIPALI STPP STAGE-I (2 X 800MW)

DP-FF-676-410-003

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MUKESH KUMAR

APPROVED BY

S B BANIK

PREPARED

DINAKARA P

ISSUED

410

ENGG

DATE

05/05/2016



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**DARLIPALI STPP STAGE-I
(2 X 800MW)**

DP-FF-676-410-003

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PAGE 03 OF 03

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Pre-Qualification Requirements (PQR) of Bidders for FOUNDATION FIELD BUS BASED I/O SYSTEM as a part of Offer :

1. The bidder should have designed, manufactured, supplied and commissioned the FOUNDATION FIELD BUS BASED I/O SYSTEM in thermal power plants/any other industries with similar kind of application. Further the system being offered should have been in successful operation for at least one year prior to the date of opening of techno-commercial bid.
2. Vendor shall submit the proven Performance Track Record (PTR) for the model offered by them and also submit satisfactory performance certificates for at least one year as on date of opening of bid from two end user.
3. Submit duly-filled Source Request Form (SRF), which shall be downloaded by Bidder from our website "www.bhel.com". Complete credentials of the company shall be submitted along with the SRF form. This is not applicable for Vendors who are already registered with BHEL Electronics Division, Bangalore.

Along with the documents related to PQR above, following details shall also be included in the Offer :

- I. Technical literature / Manuals of offered system
- II. Unpriced Purchase Order copies
- III. Reports of successful commissioning of the system & Minutes of the meetings.
4. Name & registered address of the Indian branch office or Indian representative for support of Erection & Commissioning and after sales service, with Organization chart.
5. Details of Manufacturing, testing & inspection facility.
6. Bidder shall have facility in India for Engineering activities, preparation of Documents, Servicing of offered system, Stocking of Spares..etc.. Submit these details.
7. Bidder shall submit following Type Test Report for Solid state/ Electronic Cards of offered system
 - I. Surge withstanding capacity (SWC) as per ANSI 37.90.1/IEEE-472
 - II. Dry Heat test as per IEC-68-2-2 or equivalent.
 - III. Damp Heat test as per IEC-68-2-3 or equivalent.
 - IV. Vibration test as per IEC-68-2-6 or equivalent.
 - V. Electrostatic discharge tests as per EN 61000-4-2 or equivalent.
 - VI. Radio frequency immunity test as per EN 61000-4-6 or equivalent.
 - VII. Electromagnetic Field immunity as per EN 61000-4-3 or equivalent.
8. If Bidder is not Original Equipment Manufacturer (OEM), than Bidder to include authorization letter from OEM for design, engineering, Manufacture, testing, supply, erection, commissioning and servicing of the offered System. This authorization letter provided by OEM to Bidder shall indicate the Type and Duration of the agreement.

Important note: In case Bidder does not submit details mentioned in above clauses or meet the requirements of Pre-qualification requirements, Offers will be summarily rejected and bidder's technical offers/proposals will not be evaluated. Please read carefully the General instructions.



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**NORTH KARANPURA STPP
(3 X 660MW)**

NK-FF-1003-415-003

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**PRE-QUALIFICATIONS REQUIREMENT
FOR
PURCHASE SPECIFICATION PS4152282
FOUNDATION FIELD BUS BASED I/O SYSTEM**

PROJECT : NORTH KARANPURA STPP (3x660 MW)
CUSTOMER : M/s NTPC LTD.

CHECKED BY

B S SHENOY

APPROVED BY

D P MAJAKAR

PREPARED

BRINDHA M

ISSUED

415

ENGG

DATE

28/05/2016



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**NORTH KARANPURA STPP
(3 X 660MW)**

NK-FF-1003-415-003

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APPROVED BY

B S SHENOY

D P MAJAKAR

PREPARED

ISSUED

DATE

BRINDHA M

415

28/05/2016

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**NORTH KARANPURA STPP
(3 X 660MW)**

NK-FF-1003-415-003

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3. Submit duly-filled Source Request Form (SRF), which shall be downloaded by bidder from our website "www.bhel.com". Complete credentials of the company shall be submitted along with the SRF form. This is not applicable for vendors who are already registered with BHEL Electronics Division, Bangalore.

Along with the documents related to PQR above, following details shall also be included in the Offer :

- I. Technical literature / Manuals of offered system
 - II. Unpriced Purchase Order copies
 - III. Reports of successful commissioning of the system & Minutes of the meetings.
4. Name & registered address of the Indian branch office or Indian representative for support of erection & commissioning and after sales service, with organization chart.
 5. Details of Manufacturing, testing & inspection facility.
 6. Bidder shall have facility in India for engineering activities, preparation of documents, servicing of offered system, stocking of spares etc. Submit these details.
 7. Bidder shall submit following Type Test Report for solid state/ electronic cards of offered system
 - I. Surge withstanding capacity (SWC) as per ANSI 37.90.1/IEEE-472
 - II. Dry Heat test as per IEC-68-2-2 or equivalent.
 - III. Damp Heat test as per IEC-68-2-3 or equivalent.
 - IV. Vibration test as per IEC-68-2-6 or equivalent.
 - V. Electrostatic discharge tests as per EN 61000-4-2 or equivalent.
 - VI. Radio frequency immunity test as per EN 61000-4-6 or equivalent.
 - VII. Electromagnetic Field immunity as per EN 61000-4-3 or equivalent.
 8. If bidder is not Original Equipment Manufacturer (OEM), then bidder to include authorization letter from OEM for design, engineering, manufacture, testing, supply, erection, commissioning and servicing of the offered system. This authorization letter provided by OEM to bidder shall indicate the type and duration of the agreement.

Important note: In case Bidder does not submit details mentioned in above clauses or meet the requirements of pre-qualification requirements, offers will be summarily rejected and bidder's technical offers/proposals will not be evaluated. Please read carefully the general instructions.



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**DARLIPALI STPP STAGE-I
(2 X 800MW)**

DP-FF-676-410-002




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***GENERAL INSTURCTION TO BIDDERS
FOR
PURCHASE SPECIFICATION PS4102028
FOUNDATION FIELD BUS BASED I/O SYSTEM***

PROJECT : DARLIPALI STPP STAGE-I (2 X 800MW)
CUSTOMER : M/s NTPC LTD.

Rev:01	Name	Sign	Date	CHECKED BY		APPROVED BY
Prepared	DP		05/05/2016	 MUKESH KUMAR		 S B BANIK
Checked	MK	05/05/2016				
Approved	SBB	05/05/2016				
				PREPARED	ISSUED	DATE
				 DINAKARA P	410	
					ENGG	05/05/2016



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**DARLIPALI STPP STAGE-I
(2 X 800MW)**

DP-FF-676-410-002

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Prepared	DP		05/05/2016	 MUKESH KUMAR		 S B BANIK
Checked	MK	05/05/2016				
Approved	SBB	05/05/2016				
				PREPARED	ISSUED	DATE
				 DINAKARA P	410	
					ENGG	11/08/2015



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DARLIPALI STPP STAGE-I (2 X 800MW)

DP-FF-676-410-002

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GENERAL INSTRUCTIONS TO BIDDERS

1. All required documents against this tender / specification shall be submitted in English only.
2. **Introduction:** Bidders are required to offer FOUNDATION FIELD BUS BASED I/O SYSTEM for NTPC DARLIPALI Unit-1&2 800 MW.
3. In order to accept the Technical offers / proposals from Bidders for the project mentioned in this Specification certain Pre-qualification criteria are required to be met by Bidder.
4. Pre-qualification requirements (PQR) are clearly mentioned in the specification. Bidder to read the same carefully and submit the details required for BHEL's acceptance.
5. In case Bidder does not include the details or meet the requirements of Pre-qualification requirements, their offer will be summarily rejected and Bidder's Technical offers will not be evaluated.
6. **Evaluation methodology:** BHEL shall initially open Bidder's PQR documents only as per the specification for review & acceptance. Only after acceptance of PQR documents, BHEL shall open Bidder's Technical offers for evaluation. In the event of acceptance of Bidder's technical offers, the names of such bidders along with details provided by them for PQR and details of technical offers, shall be submitted to End users/Customers for their acceptance/approval. Commercial bids of only accepted/approved Bidders by End users/Customers, shall be considered by BHEL for further processing.
7. Bidders are required to submit offers in three parts as detailed below:
 - Part-I (PQR documents)**
Documents pertaining to Pre-Qualification requirements in line with the specification.
 - Part-II (Technical bid)**
Technical bid shall be submitted in line with the Technical specs PS4102028 Rev no.00
 - Part-III(Commercial/Price bid)**
8. Whenever required during evaluation of PQR and Technical offers/bids, vendor is required to be present at BHEL Electronic Division, Bangalore, for discussions. Further in the event of order, during approval of the Vendor documents by End users/Customers, Vendor shall accompany BHEL representative for discussions.



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**NORTH KARANPURA STPP
(3 X 660MW)**

NK-FF-1003-415-002

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**GENERAL INSTURCTION TO BIDDERS
FOR
PURCHASE SPECIFICATION PS4152282
FOUNDATION FIELD BUS BASED I/O SYSTEM**

PROJECT : NORTH KARANPURA STPP (3x660 MW)
CUSTOMER : M/s NTPC LTD.

Rev:01	Name	Sign	Date	CHECKED BY		APPROVED BY
Prepared	BM		23/05/2016	B S SHENOY		D P MAJAKAR
Checked	BSS		26/05/2016			
Approved	DPM		28/05/2016			
				PREPARED	ISSUED	DATE
					415	
				BRINDHA M	ENGG	28/05/2016



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**NORTH KARANPURA STPP
(3 X 660MW)**

NK-FF-1003-415-002

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Checked	BSS		26/05/2016			
Approved	DPM		28/05/2016			
				PREPARED	ISSUED	DATE
				BRINDHA M	415	28/05/2016
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**NORTH KARANPURA STPP
(3 X 660MW)**

NK-FF-1003-415-002

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GENERAL INSTRUCTIONS TO BIDDERS

1. All required documents against this tender / specification shall be submitted in English only.
2. **Introduction:** Bidders are required to offer FOUNDATION FIELD BUS BASED I/O SYSTEM for NTPC NORTH KARANPURA STPP 3x660MW.
3. In order to accept the Technical offers / proposals from Bidders for the project mentioned in this Specification certain Pre-qualification criteria are required to be met by Bidder.
4. Pre-qualification requirements (PQR) are clearly mentioned in the specification. Bidder to read the same carefully and submit the details required for BHEL's acceptance.
5. In case Bidder does not include the details or meet the requirements of Pre-qualification requirements, their offer will be summarily rejected and Bidder's Technical offers will not be evaluated.
6. **Evaluation methodology:** BHEL shall initially open Bidder's PQR documents only as per the specification for review & acceptance. Only after acceptance of PQR documents, BHEL shall open Bidder's Technical offers for evaluation. In the event of acceptance of Bidder's technical offers, the names of such bidders along with details provided by them for PQR and details of technical offers, shall be submitted to End users/Customers for their acceptance/approval. Commercial bids of only accepted/approved Bidders by End users/Customers, shall be considered by BHEL for further processing.
7. Bidders are required to submit offers in three parts as detailed below:
Part-I (PQR documents)
Documents pertaining to Pre-Qualification requirements in line with the specification.
Part-II (Technical bid)
Technical bid shall be submitted in line with the Technical specs PS4152282 Rev no.00
Part-III(Commercial/Price bid)
8. Whenever required during evaluation of PQR and Technical offers/bids, vendor is required to be present at BHEL Electronic Division, Bangalore, for discussions. Further in the event of order, during approval of the Vendor documents by End users/Customers, Vendor shall accompany BHEL representative for discussions.



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**DARLIPALI STPP STAGE-I
(2 X 800MW)**

PS4102028


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***PURCHASE SPECIFICATION
FOR
FOUNDATION FIELD BUS
BASED I/O SYSTEM
(FOR SG C&I PACKAGE)***

PROJECT : DARLIPALI STPP STAGE-I (2 X 800MW)
CUSTOMER : NTPC

			CHECKED BY  MUKESH KUMAR	APPROVED BY  S B BANIK
		PREPARED  DINAKARA P	ISSUED 410 ENGG	DATE 05/05/2016



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DARLIPALI STPP STAGE-I (2 X 800MW)

PS4102028

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MUKESH KUMAR

S B BANIK

PREPARED

ISSUED


DATE

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		 A4 – 10	DARLIPALI STPP STAGE-I (2 X 800MW)	PS4102028 REV. NO. 00 PAGE 03 OF 12
COPY RIGHT AND CONFIDENTIAL THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.		<p>1. GENERAL</p> <p>This specification specifies broadly the requirement of Engineering, Manufacturing, Testing, Erection supervision and Commissioning of Foundation fieldbus based I/O system of proven technology to be supplied by the vendor.</p> <p>The proposed system shall be installed in Safe Zone of power plants for which BHEL is supplying control system.</p> <p>2. CONTROL PANEL</p> <p>The offered system shall be housed in panels of IP55 protection class and placed in field (locally near the equipment). Panel located in control room shall be IP32 minimum. Panel construction and other details, shall be as per Annexure-1 of this specification.</p> <p>3. FOUNDATION FIELDBUS I/O SYSTEM TECHNICAL DETAILS</p> <p>This specification covers broadly the requirement of Foundation Fieldbus based system with 8 Channel Temperature Input Devices/Multiplexers, power supplies, Power Conditioners with terminators, Mega-blocks /segment couplers with terminators, Surge suppressors/segment, FF- H1/HSE Gateway , connectors, terminators, communication cable, plugs, configuration/ diagnostic software, configuration PC (Laptop) and any other component etc. not specifically mentioned, but required to make the system complete. It is the responsibility of the vendor to ensure that all the components etc. are considered in the offer to make it complete and if any need arises during Engineering/ Testing/ Erections/ Commissioning stage, then same to be supplied by the vendor at no extra cost to BHEL.</p> <p>System shall be capable to acquire signals from 3/4 Wire PT100 RTD (0-100 Deg C range), CuCuNi thermocouple (0-150 Deg C range), NiCrNi Thermocouple (0-700 Deg C range), TC-K Thermocouple (0-800 Deg C range). Details of total signals are attached as Annexure-2.</p> <p>These signals to be acquired using 8 channel Temperature input devices / Multiplexers housed in a control panel located in the field. All other associated components like Megablock etc. will also to be housed in the same panel. All these system components shall have operating Temperature range from 0 – 85 Deg C.</p> <p>Signals from field shall be terminated at the FF I/O panel end by BHEL. These field cables will be 0.5 sq mm dia. multi core Copper cable for RTDs and 0.5 Sqmm dia multicore thermocouple extension cable for thermocouples, being regularly used in power plants. All field RTD signals shall be terminated in the panel using cage clamp TBs and Thermocouple signals will be terminated directly at 8 channel Temperature Input devices. All thermocouples in SG area are Duplex thermocouples, One element will be directly connected to 8 channel temperature Input devices and second element shall be connected to cage clamp TBs mounted in the field panel. Any specific field cable requirement may be informed to BHEL at the time of offer itself.</p>		



**DARLIPALI STPP STAGE-I
(2 X 800MW)**

PS4102028

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The offered system shall be with simple configuration for I/Os and communication system. Power supply and Power Conditioner/Hub shall be with N+N redundancy and any failure of one power supply and Power Conditioner module shall not affect performance of the system. These power conditioner shall be provided with suitable diagnostic capability and all diagnostic information shall be available through soft link (via Linking devices), which is connected to BHEL DCS. +24VDC Redundant power supply feeders shall be provided by BHEL at Panel end and supplier to arrange for further decoupling/distribution/monitoring etc. Supplier to ensure that, even in case of failure of one +24VDC power supply feeder, system is available. Supplier to inform Power supply feeder requirement/rating in the offer. Undervoltage, Overvoltage and Loss of power for each 24VDC incoming feeder to be monitored and Potential free Alarm contacts to be provided. Make of such devices shall be indicated in the offer and is subject to approval by BHEL.

All Linking devices/Gateways and Power supplies, Power conditioners, diagnostic module ,surge suppressors etc. shall be mounted in a Computer room mounted panel of IP32 class.

The proposed system will be connected to BHEL's OPC server through Ethernet switch, located in Computer Room. All communication cable within the field mounted panels and Computer room mounted panels are in the scope of vendor. Foundation Fieldbus cable from field mounted panel to Computer Room mounted panel shall also be in the scope of supplier. Foundation Fieldbus Communication cables from field mounted panels to Control room mounted panels shall be armoured cable. Cable route length between Field Mounted panels to Control room mounted **panel shall be taken 400 m. for signals under Annexure-2.**



**DARLIPALI STPP STAGE-I
(2 X 800MW)**

PS4102028

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4. SPARE REQUIREMENT

4.1 Offered system shall be expandable. Various in-built spare capacity (per panel / Location basis) shall be as follows

- I. 20% spare I/O channels wired up to Terminal Blocks for each type of signal, on overall basis in a panel.
- II. 20% spare Terminal blocks in each panel

4.2 Mandatory Spare quantities, apart from the required qty, shall be as below (On per Project basis)

- I. Prefab interconnection cables with connector- 2 no of each variety.
- II. System Bus cable with connector-2 no of each variety.
- III. Power supply modules and power - conditioners, megablocks, surge suppressors 20% or 4 nos of each type and model, whichever is more
- IV. All types of modules including I/O cards, controller/CPU/connectors etc.-10% or 2 nos of each whichever is more
- V. FF gateway/linking device, Interface hardware for communication -10% or 2 nos of each
- VI. Fuses etc. - 200% of each type & variety
- VII. Foundation Fieldbus cable - per meter rate to be indicated in the offer. Quantity for spares will be decided during detailed engineering.
- VIII. Any other item, which vendor recommends is required for trouble free operation for 2 years and not covered above, shall also be indicated and included in the offer with optional price.

NOTE: All mandatory spares items shall be quoted with Unit price along with required quantities, as per spec.



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5. SYSTEM REQUIREMENT

Offered system shall be of proven technology. Vendor to submit, for the offered system's reference list and operating experience of the listed services in thermal power plants/any other industries, for more than 2 years with similar kind of application. Any other reference letters from the user of the system/any other industry etc. may also be submitted for information. Operating experience / Reference list of Individual components forming the whole system may also be furnished All field mounted components in offered system shall meet following requirements, as minimum

- i. Input : K/T -type thermocouple / PT-100 RTD
- ii. CJC Compensation : Integral
- iii. Accuracy : Minimum 0.2% at 0-800 Deg C span or Better
- iv. Operating Temperature** : 0- 85 Deg C (continuous operation)
- v. Diagnostics: Wire Break monitoring, Power supply healthiness etc.
- vi. Mounting : DIN Rail Mounting
- vii. Accessories : All required Accessories to make the system complete , shall be provided
- viii. EMC: EN61326 Standard.

** Control room mounted equipment shall be suitable for operating temperature up to 50 Deg C.(continuous operation).



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6. MAKE OF VARIOUS COMPONENTS

Vendors to note that various FF items/components etc. shall be Foundation Fieldbus approved and from one of the below mentioned make only. Vendor to mention make and Model no. Proposed in the offer.

6.1 ELECTRONIC MODULES/COMPONENTS related to FF bus system (Multiplexer/ Power supply/ Surge suppressor/ Megablock / linking device /Network switches etc.)

- I. M/s Pepperl & Fuchs
- II. M/s MTL Instruments
- III. M/s Endress & Hauser
- IV. M/s Emerson Process Management
- V. M/s Smar
- VI. M/s Softing
- VII. M/s Moore Hawke
- VIII. M/s R.Stahl
- IX. M/s Phoenix Contact

6.2 PANEL/ENCLOSURES

- I. M/s Rittal India
- II. M/s Pyrotech, Udaipur
- III. M/s MPP, Bangalore
- IV. M/s Hoffman India

6.3 FOUNDATION FIELDBUS CABLES

- I. M/s Belden
- II. M/s Leoni Kerpen
- III. M/s Phoenix Contacts

NOTE : Vendor may offer any other make under S.No. 6.1/6.2/6.3 above also, as **OPTION** along with main offer, however, same will be subjected to BHEL's approval.



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(2 X 800MW)**

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7. QUALITY REQUIREMENT

The equipment covered under this specification shall be subject to vendor's Quality Plan to be approved by M/s BHEL/ End user before start of manufacture. To ensure that quality is in-built in each equipment the Quality Assurance System manual & Quality Plan indicating the system followed by the vendor shall be submitted to purchaser for his review along with the offer.

The vendor shall give at least 15 days written advance notice to purchaser for witnessing the tests/inspection at various stages. The expenses for all such test/inspection shall be to Manufacturer's account except for the expenses of purchaser's representatives witnessing the test. The purchaser shall attend such test/inspection or advice that the manufacturer may proceed with the test, which shall be deemed to have in purchaser's presence and shall furnish relevant test result and test certificates to the purchaser for his review who will then issue Material Dispatch Clearance Certificate (MDCC) enabling supplier to dispatch the equipment.

7.1 TYPE TEST REQUIREMENT:


The Vendor shall give the type test report for the offered System and the test requirement shall cover CMRR, NMRR Verification. Submission of type test results and certificate shall be acceptable provided.

- i) The same has been carried out by the Vendor on exactly the same model / rating of equipment.
- ii) There has been no change in the components from the offered equipment & tested equipment.
- iii) The test has been carried out as per the latest standards along with amendments as on the date of Bid opening and as indicated below :

7.2 SPECIAL REQUIREMENT FOR SOLID STATE EQUIPMENTS/ SYSTEMS

The minimum type test reports, which are to be submitted for each of the major C&I systems shall be as indicated below:

- i) Surge Withstand Capability (SWC) for Solid State Equipment Systems
All solid state systems/equipment shall be able to withstand the electrical noise and surges as encountered in actual service conditions and inherent in a power plant. All the solid state systems/equipment shall be provided with all required protections that needs the surge withstand capability as defined in ANSI 37.90.1/ IEEE-472.Hence, all front end cards which receive external signals like Analog input & output modules, Binary input & output modules etc. including power supply, data highway

		 <p>भारत भारती एल A4 - 10</p>	DARLIPALI STPP STAGE-I (2 X 800MW)	PS4102028 REV. NO. 00 PAGE 09 OF 12	
COPY RIGHT AND CONFIDENTIAL THE INFORMATION ON THIS DOCUMENT IS THE PROPERTY OF BHARAT HEAVY ELECTRICALS LIMITED. IT MUST NOT BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTEREST OF THE COMPANY.		<p>data links shall be provided with protections that meets the surge withstand capability as defined in ANSI 37.90.1/ IEEE-472. Complete details of the features incorporated in electronics systems to meet this requirement, the relevant tests carried out, the test certificates etc. shall be submitted along with the proposal.</p> <p>As an alternative to above, suitable class of EN 61000-4-12 which is equivalent to ANSI /37.90.1/IEEE-472 may also be adopted for SWC test.</p> <ul style="list-style-type: none"> ii) Dry Heat test as per IEC-68-2-2 or equivalent. iii) Damp Heat test as per IEC-68-2-3 or equivalent. iv) Vibration test as per IEC-68-2-6 or equivalent. v) Electrostatic discharge tests as per EN 61000-4-2 or equivalent. vi) Radio frequency immunity test as per EN 61000-4-6 or equivalent. vii) Electromagnetic Field immunity as per EN 61000-4-3 or equivalent. <p>Test listed at item no. v, vi, vii, above are applicable for electronic cards only.</p> <p>Note: If Type Tests and other tests (as specified under 7.1 and 7.2) have been conducted with reference to standards different than what have been specified in the specification, then vendor to clearly indicate these specification with equivalent specifications in the offer.</p> <p><u>8.0 CONFIGURATION & DIAGNOSTIC SOFTWARE</u></p> <p>8.1 All software required for configuration of the offered Foundation Fieldbus system to be considered and offered. Similarly, software for Diagnostics /Troubleshooting is also to be part of offer. Any license, if required, to be considered on Project/Site basis and not on Unit basis. System Configuration PC (Laptop) required to load these software will be provided by Vendor. Configuration PC (Laptop) shall be from reputed vendors (Dell/IBM/Compaq) and of latest configuration with all the required basic software/operating system. All these software along-with necessary Device Description files to be supplied in CD or any other storage media only, even though it may be available in Supplier's Web Site or otherwise. Any cable required for communication during configuration also be considered in the offer.</p> <p>8.2 Supplier to provide all necessary technical support to establish communication between the offered system and BHEL's control system. Any software OR Configuration file etc. required establishing meaningful communication shall be part of the Offered system.</p> <p>8.3 Supplier to provide network switch in their panel for interconnection with BHEL OPC server. Any additional software/configuration file etc. required during Engineering/Testing/Commissioning etc. to be supplied by Vendor with no extra cost to BHEL.</p>			



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9 WARRENTY

The offered system/ equipment shall be guaranteed for satisfactory operation of 18 months from the date of commissioning OR 24 months from the date of supply whichever is earlier.

10 ERECTION & COMMISSIONING SCOPE

10.1 All panel erection, cable laying, cable termination etc. will be done by BHEL under supervision of Vendor's engineer. All cable termination details etc. to be given by Vendor to BHEL for cable terminations.

10.2 All system commissioning including Pre-commissioning checks, Panel energizing, Loop checking, Communication establishment with Host DCS system etc. is the responsibility of the Vendor. Vendor to indicate per unit separate Lump-sum price for this activity in the offer.

11 TRAINING

Vendor to provide One day On-site training per unit to BHEL/End User's engineers on all aspects of the Foundation Fieldbus system being offered/supplied. Tentatively 10-15 Engineers will participate in this training. Training shall necessarily include Technical details of Foundation Fieldbus system, Operating principle, system configuration supplied, system troubleshooting and maintenance, as minimum requirement.



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12 DOCUMENTATION

12.1 Documents to be furnished along-with offer (1 set)

- Technical write-up(functional)
- Technical literature/catalog of each component
- Configuration drawing/Segment design including power supply and monitoring scheme.
- Detailed bill of material with make & model
- Data sheet of each component offered
- Clause-wise confirmation/deviation list
- Reference List/Operating experience
- Quality Plan
- List of Software to be supplied
- Overall General Arrangement drg.
- General Arrangement drg.
- Calculation considering various distances between different components.
- Clear list of items/software etc. NOT CONSIDERED but required to complete the system

12.2 Documents to be furnished after placement of order

(for Approval by BHEL/ End User- 2 sets hardcopies + soft copy in PDF format) Technical write-up(functional)

- Technical literature/catalog of each component
- Configuration drawing/segment design
- Detailed bill of material with make & model
- Data sheet
- Schematic diagram/Loop diagram including Termination details
- Quality Plan
- List of Software to be supplied
- Type test reports for the Tests mentioned under clause 6.0
- IP55/32 Protection class Type Test Certificate for control panel.

12.3 Documents to be furnished before dispatch for review/ acceptance by M/s BHEL/End user (2 sets hardcopies + soft copy in .PDF format)

- Visual/ Dimensional Test report
- Calibration report
- Test Report/Certificate/Type test reports
- Schematic diagram/Loop diagram including Termination details
- HV/IR Test Report.



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12.4 Final Operation & Maintenance Manual (O&M Manual) shall contain minimum of following:

- Technical write-up(functional)
- Technical literature/catalog of each component
- Configuration drawing/segment design
- Detailed bill of material with make & model
- Data sheet
- Schematic diagram/Loop diagram including Termination details
- Details of Software being supplied
- Trouble shooting procedure and Maintenance guidelines
- Overall General Arrangement drg.
- General Arrangement drg.
- O&M Manuals to be submitted at the Time of Dispatch. (2 sets hardcopies + 1 soft copy in .PDF format)

NOTES :

1. Vendor must furnish, all documents, in line with specification along with offer. Clause-wise specific acceptance/deviations shall be furnished. Deviations, if any, must be clearly brought out in offer. Failure to provide Clause-wise acceptance/deviations may result in Technical disqualification.
 2. It is the responsibility of vendor to check for completeness of the offered system. If any additional component/software etc. is required during Engineering/Testing/Erection/Commissioning, then same to be provided by Vendor with NO EXTRA COST TO BHEL.
 3. Any clarification required from BHEL side may be obtained during offer stage only.
 4. Usages for each component shall be as below:
 - 4.1 Input Temperature Multiplexer - Max. 7 I/Ps to be used. 8th channel to be kept for spare and can be considered for spare wired calculation.
 - 4.2 Megablock/Segment coupler/Wiring Block/Gateway linking device
 - 4.2.1 4 Channel - Max. 3 to be used
 - 4.2.2 8 Channel - Max. 7 to be used
 - 4.2.3 10/12 Channel - Max 8 to be used
 - 4.3 Power conditioner (In redundant mode with Diagnostic module)
 - 4.3.1 4 Redundant channel - Max. 3 to be used
 - 4.3.2 8 Redundant channel - Max. 7 to be used
- All Power conditioners offered shall be fully loaded, even if No. of channels used is less than the specified above.
- 4.4 Max. No of devices/segment shall not be more than 8.
 - 4.5 Surge suppressors to be provided at both ends i.e at control room panel end as well as at field panel end. Surge Withstand Capability details are provided in cl. 7.2



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**PURCHASE SPECIFICATION FOR
FOUNDATION FIELD BUS BASED I/O
SYSTEM**

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CUSTOMER:	 NTPC LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)
PROJECT:	NORTH KARANPURA SUPER THERMAL POWER PROJECT (3X660MW)
TITLE:	PURCHASE SPECIFICATION FOR FOUNDATION FIELD BUS BASED I/O SYSTEM

REVISION NO: 00	APPROVED BY : D.P.MAJAKAR			
	PREPARED -sd- BRINDHA M	CHECKED -sd- B S SHENOY	ISSUED CE-ENGG- BOP	DATE 27/04/2016



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REVISION HISTORY SHEET

Revision Number	DATE	NATURE OF CHANGE	REASON	PREPARED	APPROVED
00	10/05/2016	FIRST ISSUE	----	BM	DPM

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1.0 GENERAL

This specification broadly specifies the requirement of Engineering, Manufacturing, Testing, Erection, Supervision and Commissioning of Foundation fieldbus based I/O system of proven technology to be supplied by the vendor.

The proposed system shall be installed in Safe Zone of power plants for which BHEL is supplying control system.

2.0 CONTROL PANEL

The offered system shall be housed in panels of IP55 protection class and placed in field (locally near the equipment). Panel located in control room shall be a minimum of IP32 protection class.

Panel construction and other details shall be as per Annexure-1 of this specification.

3.0 FOUNDATION FIELDBUS I/O SYSTEM TECHNICAL DETAILS

This specification covers broadly the requirement of Foundation Fieldbus based system with 8 Channel Temperature Input Devices/Multiplexers, power supplies, Power Conditioners with terminators, Mega-blocks /segment couplers with terminators, Surge suppressors/segment, FF- H1/HSE Gateway , connectors, terminators, communication cable, plugs, configuration/ diagnostic software, configuration PC (Laptop) and any other component etc. not specifically mentioned, but required to make the system complete. It is the responsibility of the vendor to ensure that all the components etc. are considered in the offer to make it complete and if any need arises during Engineering/Testing/Erections/Commissioning stage, then same to be supplied by the vendor at no extra cost to BHEL.

System shall be capable to acquire signals from 3/4 Wire PT100 RTD (0-100 °C range), CuCuNi thermocouple (0-150 °C range), NiCrNi Thermocouple (0-700 °C range). Details of total signals are attached as Annexure-2.

These signals are to be acquired using 8 channel Temperature input devices / Multiplexers housed in a control panel located in the field. All other associated components like Megablock etc. will also to be housed in the same panel. All these system components shall have operating Temperature range from 0 – 85 °C.

Signals from field shall be terminated at the FF I/O panel end by BHEL. These field cables will be 0.5 sqmm dia. multi core Copper cable for RTDs and 0.5 sqmm dia multicore thermocouple extension cable for thermocouples, being regularly used in power plants. All field RTD signals shall be terminated in the panel using cage clamp TBs and Thermocouple signals will be terminated directly at 8 channel Temperature Input devices. All thermocouples in SG area are Duplex thermocouples, one element will be directly connected to 8 channel temperature input devices and second element shall be connected to cage clamp TBs mounted in the field panel. Any specific field cable requirement may be informed to BHEL at the time of offer itself.

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The offered system shall be with simple configuration for I/Os and communication system. Power supply and Power Conditioner/Hub shall be with N+N redundancy and any failure of one power supply and Power Conditioner module shall not affect performance of the system. These power conditioner shall be provided with suitable diagnostic capability and all diagnostic information shall be available through soft link (via Linking devices), which is connected to BHEL DCS. +24VDC redundant power supply feeders shall be provided by BHEL at Panel end and supplier to arrange for further decoupling/distribution/monitoring etc. Supplier to ensure that, even in case of failure of one +24VDC power supply feeder, system is available. Supplier to inform the power supply feeder requirement/rating in the offer. Undervoltage, Overvoltage and Loss of power for each 24VDC incoming feeder is to be monitored and potential free alarm contacts are to be provided. Make of such devices shall be indicated in the offer and is subject to approval by BHEL. All Linking devices/Gateways and Power supplies, Power conditioners, diagnostic module, surge suppressors etc. shall be mounted in a Computer room mounted panel of IP32 class.

The proposed system will be connected to BHEL's OPC server through Ethernet switch, located in Computer Room. All communication cable within the field mounted panels and Computer room mounted panels are in the scope of vendor. Foundation Fieldbus cable from field mounted panel to Computer Room mounted panel shall also be in the scope of supplier. Foundation Fieldbus Communication cables from field mounted panels to Control room mounted panels shall be armoured cable. Cable route length between Field Mounted panels and Control room mounted **panel shall be taken as 400 m. for signals under Annexure-2**. Cable from linking device/Computer room mounted panel to BHEL's OPC server and Ethernet switch are in the scope of BHEL

4.0 SPARE REQUIREMENT

4.1 Offered system shall be expandable. Various in-built spare capacities (per panel / Location basis) shall be as follows

- i. 20% spare I/O channels wired upto Terminal Blocks for each type of signal in a panel.
- ii. 20% spare Terminal blocks in each panel

4.2 Mandatory Spare quantities, apart from the required quantity, shall be as below (On per Project basis)

- i. Prefab interconnection cables with connector - 2 nos. of each variety
- ii. System Bus cable with connector -2 nos. of each variety
- iii. Power supply modules and power - conditioners, megablocks, surge suppressors 20% or 4 nos. of each type and model, whichever is more
- iv. All types of modules including I/O cards, controller/CPU/connectors etc.-10% or 2 nos. of each whichever is more
- v. FF gateway/linking device, Interface hardware for communication -10% or 2 nos. of each whichever is more
- vi. Fuses etc. - 200% of each type & variety
- vii. Foundation Fieldbus cable - per meter rate to be indicated in the offer. Quantity for spares will be decided during detailed engineering.
- viii. Any other item, which vendor recommends is required for trouble free operation for 2 years and not covered above, shall also be indicated and included in the offer with optional price.

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NOTE: All mandatory spares items shall be quoted with Unit price along with required quantities, as per spec.

5.0 SYSTEM REQUIREMENT

Offered system shall be of proven technology. Vendor to submit, for the offered system's reference list and operating experience of the listed services in thermal power plants/any other industry, for more than 2 years for similar kind of application. The rating of the power plant shall be at least 210MW. Any other reference letters from the user of the system/any other industry etc. may also be submitted for information. Operating experience /Reference list of Individual components forming the whole system may also be furnished. All field mounted components in offered system shall meet following requirements, as minimum

1. Input: K/T -type thermocouple / PT-100 RTD
2. CJC Compensation: Integral
3. Accuracy: Minimum 0.2% at 0-800°C range or better
4. Operating Temperature**: 0- 85 °C (continuous operation)
5. Diagnostics: Wire Break monitoring, Power supply healthiness etc.
6. Mounting: DIN Rail Mounting
7. Accessories: All required accessories to make the system complete shall be provided
8. EMC: EN61326 Standard.

** Control room mounted equipment shall be suitable for operating Temperature upto 50 °C (continuous operation)

6.0 MAKE OF VARIOUS COMPONENTS

Vendors to note that various FF items/components etc. shall be Foundation Fieldbus approved and from one of the below mentioned make only. Vendor to mention make and Model no. proposed in the offer.

6.1 ELECTRONIC MODULES/COMPONENTS

All electronic modules/components related to FF bus system (Multiplexer/ Power supply/ Surge suppressor/ Megablock / linking device etc.)

1. M/s Pepperl & Fuchs
2. M/s MTL Instruments
3. M/s Endress & Hauser
4. M/s Emerson Process Management
5. M/s Smar
6. M/s Softing
7. M/s Moore Hawke
8. M/s R.Stahl
9. M/s Phoenix Contact

6.2 PANEL/ENCLOSURES

1. M/s Rittal India
2. M/s Pyrotech, Udaipur
3. M/s MPP, Bangalore
4. M/s Hoffman India

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6.3 FOUNDATION FIELDBUS CABLES

1. M/s Belden
2. M/s Leoni Kerpen
3. M/s Phoenix Contacts

NOTE: 1. Vendor may offer any other make under S.No. 6.1/6.2/6.3 above also, as OPTION along with main offer, however, same will be subjected to BHEL's approval.

7.0 QUALITY REQUIREMENT

The equipment covered under this specification shall be subject to vendor's Quality Plan to be approved by M/s BHEL/ End user before start of manufacture. To ensure that quality is in-built in all equipments, the Quality Assurance System manual & Quality Plan indicating the system followed by the vendor shall be submitted to purchaser for his review along with the offer.

The vendor shall give at least 15 days written advance notice to purchaser for witnessing the tests/inspection at various stages. The expenses for all such test/inspection shall be borne by the Manufacturer except for the expenses of purchaser's representatives witnessing the test. The purchaser shall attend such test/inspection or advice that the manufacturer may proceed with the test, which shall be deemed to be in purchaser's presence and shall furnish relevant test result and test certificates to the purchaser for his review who will then issue Material Dispatch Clearance Certificate (MDCC) enabling supplier to dispatch the equipment.

7.1 TYPE TEST REQUIREMENT:

The Vendor shall give the type test report for the offered System and the test requirement shall cover CMRR, NMRR Verification. Submission of type test results and certificate shall be acceptable provided:

- i. The same has been carried out by the Vendor on exactly the same model / rating of equipment.
- ii. There has been no change in the components from the offered equipment & tested equipment.
- iii. The test has been carried out as per the latest standards along with amendments as on the date of Bid opening and as indicated below.

**7.2 SPECIAL REQUIREMENT FOR SOLID STATE EQUIPMENTS/
SYSTEMS**

The minimum type test reports, which are to be submitted for each of the major C&I systems shall be as indicated below:

- i. Surge Withstand Capability (SWC) for Solid State Equipment Systems
All solid state systems/equipment shall be able to withstand the electrical noise and surges as encountered in actual service conditions and inherent in a power

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plant. All the solid state systems/equipment shall be provided with all required protections that needs the surge withstand capability as defined in ANSI 37.90.1/ IEEE-472.Hence, all front end cards which receive external signals like Analog input & output modules, Binary input & output modules etc. including power supply, data highway, data links shall be provided with protections that meets the surge withstand capability as defined in ANSI 37.90.1/ IEEE-472. Complete details of the features incorporated in electronics systems to meet this requirement, the relevant tests carried out, the test certificates etc. shall be submitted along with the proposal. As an alternative to above, suitable class of EN 61000-4-12 which is equivalent to ANSI 37.90.1/IEEE-472 may also be adopted for SWC test.

- ii. Dry Heat test as per IEC-68-2-2 or equivalent.
- iii. Damp Heat test as per IEC-68-2-3 or equivalent.
- iv. Vibration test as per IEC-68-2-6 or equivalent.
- v. Electrostatic discharge tests as per EN 61000-4-2 or equivalent.
- vi. Radio frequency immunity test as per EN 61000-4-6 or equivalent.
- vii. Electromagnetic Field immunity as per EN 61000-4-3 or equivalent.

Test listed at item no. v, vi, vii, above are applicable for electronic cards only.

Note: If Type Tests and other tests (as specified under clauses 7.1 and 7.2) have been conducted with reference to standards different than what have been specified in the specification, then vendor to clearly indicate these specification with equivalent specifications in the offer.

8.0 CONFIGURATION & DIAGNOS.TIC SOFTWARE

- 8.1 All software required for configuration of the offered Foundation Fieldbus system to be considered and offered. Similarly, software for Diagnostics /Troubleshooting is also to be part of offer. Any license, if required, to be considered on Project/Site basis and not on Unit basis. System Configuration PC (Laptop) required to load this software will be provided by Vendor. Configuration PC (Laptop) shall be from reputed vendors (Dell/IBM/Compaq) and of latest configuration with all the required basic software/operating system. All the software along-with necessary Device Description files to be supplied in CD only, even though it may be available in Supplier's Web Site or otherwise. Any cable required for communication during configuration also is considered in the offer.
- 8.2 Supplier to provide all necessary technical support to establish communication between the offered system and BHEL's control system. Any software or Configuration file etc. required for establishing meaningful communication shall be part of the Offered system.
- 8.3 Supplier to provide network switch in their panel for interconnection with BHEL's OPC server.

Any additional software/configuration file etc. required during Engineering/Testing/Commissioning etc. to be supplied by Vendor with no extra cost to BHEL.

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9.0 WARRANTY

The offered system/ equipment shall be guaranteed for satisfactory operation of 18 months from the date of commissioning OR 24 months from the date of supply whichever is earlier.

10.0 ERECTION & COMMISSIONING SCOPE

- 10.1 All panel erection, cable laying, cable termination etc. will be done by BHEL under supervision of Vendor's engineer. All cable termination details etc. to be given by Vendor to BHEL for cable terminations.
- 10.2 All system commissioning including Pre-commissioning checks, Panel energizing, Loop checking, Communication establishment with Host DCS system etc. is the responsibility of the Vendor. Vendor is to indicate per unit Lump-sum price for this activity separately in the offer.

11.0 TRAINING

Vendor to provide One day On-site hands-on training per unit to BHEL/End User's engineers on all aspects of the Foundation Fieldbus system being offered/supplied. Tentatively 10-15 Engineers will participate in this training. Training shall necessarily include Technical details of Foundation Fieldbus system, Operating principle, system configuration supplied, system trouble-shooting and maintenance, as minimum requirement.

12.0 DOCUMENTATION

12.1 Documents to be furnished along-with offer (1 set)

- Technical write-up (functional)
- Technical literature/catalog of each component
- Configuration drawing/Segment design including power supply and monitoring scheme.
- Detailed bill of material with make & model
- Data sheet of each component offered
- Clause-wise confirmation/deviation list
- Reference List/Operating experience
- Quality Plan
- List of Software to be supplied
- Overall General Arrangement drawing.
- General Arrangement drawing.
- Calculation considering various distances between different components.
- Clear list of items/software etc. NOT CONSIDERED but required to complete the system

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PURCHASE SPECIFICATION FOR FOUNDATION
FIELD BUS BASED I/O SYSTEM

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12.2 Documents to be furnished after placement of order
(For Approval by BHEL/ End User- 2 sets hardcopies + soft copy in PDF format)

Technical write-up (functional)

- Technical literature/catalog of each component
- Configuration drawing/segment design
- Detailed bill of material with make & model
- Data sheet
- Schematic diagram/Loop diagram including Termination details
- Quality Plan
- List of Software to be supplied
- Type test reports for the Tests mentioned under clause 6.0
- IP55/32 Protection class Type Test Certificate for control panel.

12.3 Documents to be furnished before dispatch for review/acceptance by M/s BHEL/End user (2 sets hardcopies + soft copy in .PDF format)

- Visual/ Dimensional Test report
- Calibration report
- Test Report/Certificate/Type test reports
- Schematic diagram/Loop diagram including Termination details
- HV/IR Test Report.

12.4 Final Operation & Maintenance Manual (O&M Manual) shall contain minimum of following:

- Technical write-up(functional)
- Technical literature/catalog of each component
- Configuration drawing/segment design
- Detailed bill of material with make & model
- Data sheet
- Schematic diagram/Loop diagram including Termination details
- Details of Software being supplied
- Trouble shooting procedure and Maintenance guidelines
- Overall General Arrangement drawing.
- General Arrangement drawing.
- O&M Manuals to be submitted at the Time of Dispatch. (2 sets hardcopies + 1 soft copy in .PDF format)

NOTES:

1. Vendor must furnish all documents, in line with specification along with offer. Clause-wise specific acceptance/deviations shall be furnished. Deviations, if any, must be clearly brought out in offer. Failure to provide Clause-wise acceptance/deviations may result in Technical disqualification.

2. It is the responsibility of vendor to check for completeness of the offered system. If any additional component/software etc. is required during Engineering/ Testing/ Erection/



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PURCHASE SPECIFICATION FOR FOUNDATION
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Commissioning, then same is to be provided by Vendor with NO EXTRA COST TO BHEL.

3. Any clarification required from BHEL may be obtained during offer stage only.

4. Usages for each component shall be as below:

4.1 Input Temperature Multiplexer (8 I/P) - Max. 7 I/Ps to be used. 8th channel to be kept spare and can be considered for spare wired calculation.

4.2 Megablock/Segment coupler/Wiring Block

- i. 4 Channel - Max. 3 to be used
- ii. 8 Channel - Max. 7 to be used
- iii. 10/12 Channel - Max 8 to be used

4.3 Power conditioner (In redundant mode with Diagnostic module)

- i. 4 Redundant channel - Max. 3 to be used
- ii. 8 Redundant channel - Max. 7 to be used

All Power conditioners offered shall be fully loaded, even if no. of channels used is less than the specified above.

4.4 Maximum no. of devices/segment shall not be more than 8.

4.5 Surge suppressors to be provided at both ends i.e. at control room panel end as well as at field panel end. SWC details are proved in clause 7.2

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 भारत हेवी इलेक्ट्रिकल्स लिमिटेड
 Bharat Heavy Electricals Ltd.,
 (A Government of India undertaking)
 Electronics Division
 PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 002- Rev 00

GENERAL COMMERCIAL CONDITIONS FOR CONTRACT

These 'General Commercial Conditions for Contract for Purchase' hereinafter referred to as GCC apply to all enquiries, tenders, requests for quotations, orders, contracts and agreements concerning the supply of goods and the rendering of related services (hereinafter referred to as "deliveries") to Bharat Heavy Electricals Limited and any of its units, regions or divisions (hereinafter referred to as "BHEL" or the Purchaser) or its projects / customers.

Any deviations from or additions to these GCC require BHEL's express written consent. The general terms of business or sale of the vendor shall not apply to BHEL. Acceptance, receipt of shipments or services or effecting payment shall not mean that the general terms of business or sale of the vendor have been accepted.

Orders, agreements and amendments thereto shall be binding if made or confirmed by BHEL in writing. Only the Purchasing department of BHEL is authorized to issue the Purchase Order or any amendment thereof.

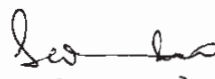
Definitions: Throughout these conditions and in the specifications, the following terms shall have the meanings assigned to them, unless the subject matter or the context requires otherwise.

- 'The Purchaser' means Bharat Heavy Electricals Limited, Electronics division, Mysore road, Bangalore 560 026, a Unit of Bharat Heavy Electricals Limited (A Govt. of India Undertaking) incorporated under the Companies Act having its registered office at BHEL House, Siri Fort, New Delhi-110049, India and shall be deemed to include its successors and assigns. It may also be referred to as BHEL.
- 'The vendor' means the person, firm, company or organization on whom the Purchase Order is placed and shall be deemed to include the vendor's successors, representative heirs, executors and administrator as the case may be. It may also be referred to as Seller, Contractor or Supplier.
- 'Contract' shall mean and include the Purchase Order incorporating various agreements, viz. tender/ RFQ, offer, letter of intent / acceptance / award, the General Conditions of Contract and Special Conditions of Contract for Purchase, Specifications, Inspection / Quality Plan, Schedule of Prices and Quantities, Drawings, if any enclosed or to be provided by BHEL or his authorized nominee and the samples or patterns if any to be provided under the provisions of the contract.
- 'Parties to the Contract' shall mean the 'The Vendor' and the Purchaser as named in the main body of the Purchase Order.

Interpretation:

In the contract, except where the context requires otherwise:

- words indicating one gender include all genders;
- words indicating the singular also include the plural and words indicating the plural also include the singular;
- provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing, and
- "Written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.


 (S. V. Rao)

Applicable Conditions:

1. **Price Basis:** All prices shall be firm until the purchase order is executed / completed in all respects. No price variations / escalation shall be permitted unless otherwise such variations / escalations are provided for and agreed by BHEL in writing in the purchase order.
2. **Validity:** The offer will be valid for a period of 120 days from the date of technical bid opening date. Validity beyond 120 days, if required, will be specified in the SCC (special conditions of contract).
3. **Ordering and confirmation of Order:** Vendor shall send the order acceptance on their company letter head within two weeks from the date of Purchase Order or such other period as specified / agreed by BHEL. BHEL reserves the right to revoke the order placed if the order confirmation differs from the original order placed. The acceptance of goods/services/supplies by BHEL as well as payments made in this regard shall not imply acceptance of any deviations.
The purchase order will be deemed to have been accepted if no communication to the contrary is received within two weeks (or the time limit as specified / agreed by BHEL) from the date of the purchase order.

4. **Documentation:** After receipt of Purchase Order, vendor should submit required documents like drawings, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report , O & M Manuals and/or any other relevant documents as per Specification/Purchase Order, as and when required by BHEL/Customer.

At any stage within the contract period, the vendor shall notify of any error, fault or other defect found in BHEL's documents /specifications or any other items for reference. If and to the extent that (taking account of cost and time) any vendor exercising due care would have discovered the error, fault or other defect when examining the documents/specifications before submitting the tender, the time for completion shall not be extended. However if errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the vendor's documents, they shall be corrected at his cost, notwithstanding any consent or approval.

5. **Penalty:**
For delay in documentation: In the event of delay in submission of complete set of documents ((like drawings, bill of materials, datasheets, catalogues, quality plan etc. as called in tender specifications including soft copies wherever applicable) in required sets beyond three weeks (or as agreed/indicated in the Purchase Order) from the date of Purchase Order, penalty at 0.5% (half percent) per week or part thereof, limited to a maximum of 5% (five percent) of the basic material value of the Purchase Order will be applicable.

For delay in delivery: In the event of delay in agreed contractual delivery as per Purchase Order, penalty @ 0.5 % (half percent) per week or part thereof but limited to a max of 10% (ten percent) value of undelivered portion (basic material cost) will be applicable. Delivery will commence from the date of document approval by customer / BHEL or date of issue of manufacturing clearance, whichever is later. The date for which Inspection call is issued by vendor along with test certificates / test reports / Certificate of Conformance / calibration reports, as proof of completion of manufacturing will be treated as date of deemed delivery for penalty calculation. In the absence of furnishing such document indicated above as proof of completion of manufacturing along with inspection call, actual date of inspection will be considered as date of deemed delivery and BHEL will not be responsible for delay in actual date of inspection.


Penalty for delayed documentation/delayed delivery, if applicable, shall be deducted at the time of first payment. If penalty is applicable for duration of less than a week, penalty @ 0.5% (half percent) of the basic material value will be deducted.

6. **Contract variations (Increase or decrease in the scope of supply):** BHEL may vary the contracted scope as per requirements at site. If vendor is of the opinion that the variation has an effect on the agreed price or delivery period, BHEL shall be informed of this immediately in writing along with technical details. Where unit rates are available in the Contract, the same shall be applied to such additional work. Vendor shall not

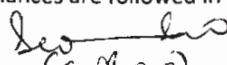
(Signature)
(Sv Rao)

perform additional work before BHEL has issued written instructions / amendment to the Purchase Order to that effect. The work which the vendor should have or could have anticipated in terms of delivering the service(s) and functionality (i.e.) as described in this agreement, or which is considered to be the result of an attributable error on the vendor's part, shall not be considered additional work.

7. **Reverse Auction:** BHEL reserves the right to follow REVERSE AUCTION PROCEDURE (ONLINE BIDDING ON NETWORK) before finalising the Purchase order on technically competent bidders, as per the guidelines given in Annexure III. In case BHEL does not resort to Reverse Auction, the price bids and price impacts (if any) already submitted and available with BHEL shall be opened as per BHEL's standard practice.
8. **Inspection:** Prior written notice of at least 10 days shall be given along with internal test certificates / COC and applicable test certificates. Materials will be inspected by BHEL-EDN-QS/CQS or BHEL nominated Third Party Inspection Agency (TPIA) or BHEL authorized Inspection Agency or Customer / Consultant or jointly by BHEL & Customer / consultant. All tests have to be conducted as applicable in line with approved Quality plan or QA Checklist or Purchase specification and original reports shall be furnished to BHEL-EDN, Bangalore for verification / acceptance for issue of dispatch clearance.
All costs related to inspections & re-inspections shall be borne by vendor. Whether the Contract provides for tests on the premises of the vendor or any of his Sub-contractor/s, vendor shall be responsible to provide such assistance, labour, materials, electricity, fuels, stores, apparatus, instruments as may be required and as may be reasonably demanded to carry out such tests efficiently. Cost of any type test or such other special tests shall be borne by BHEL only if specifically agreed to in the purchase order.
9. **Transit Insurance:** Transit insurance coverage between vendor's works and project site shall be to the account of BHEL, unless specifically agreed otherwise. However, vendor shall send intimation directly to insurance agency (as mentioned in dispatch instructions issued by BHEL) through fax/courier/e-mail, immediately on dispatch of goods for covering insurance. A copy of such intimation sent by vendor to insurance agency shall be given to BHEL along with dispatch documents. Dispatch documents will be treated as incomplete without such intimation copy. BHEL shall not be responsible for sending intimations to insurance agency on behalf of the vendor.
10. **High Sea Sales (HSS):** Customs clearance of the consignment landed on Indian Sea / Air ports will be done by BHEL based on the original HSS documents provided by vendors.
Any delay in submission of complete / correct HSS documents to BHEL may incur demurrage charges. All demurrage charges on account of incomplete / incorrect HSS documents submission by vendor will be to vendor's account and all such charges will be recovered from any of the available vendor bills with BHEL.
11. **Packaging and dispatch:** The Seller shall package the goods safely and carefully and pack them suitably in all respects considering the peculiarity of the material for normal safe transport by Sea / Air / Rail / Road to its destination suitably protected against loss, damage, corrosion in transit and the effect of tropical salt laden atmosphere. The packages shall be provided with fixtures / hooks and sling marks as may be required for easy and safe handling. If any consignment needs special handling instruction, the same shall be clearly marked with standard symbols / instructions. Hazardous material should be notified as such and their packing, transportation and other protection must conform to relevant regulations.
The packing, shipping, storage and processing of the goods must comply with the prevailing legislation and regulations concerning safety, the environment and working conditions. Any Imported/Physical Exports items packed with raw / solid wood packing material should be treated as per ISPM – 15 (fumigation) and accompanied by Phytosanitary / Fumigation certificate. If safety information sheets (MSDS – Material Safety Data Sheet) exist for an item or the packaging, vendor must provide this information without fail along with the consignment.
Each package must be marked with Consignee name, Purchase order number, Package number, Gross weight and net weight, dimensions (L x B x H) and Seller's name. Packing list of goods inside each package with PO item number and quantity must also be fixed securely outside the box to indicate the contents of each box. Total number of packages in the consignment must also be indicated.
Separate packing & identification of items should be as follows.
 1. Main Scope - All items must be tagged with part no. & item description.
 2. Commissioning spares - All items must be tagged with part no. & item description.
 3. Mandatory spares - All items must be tagged with part no. & item description.


(Sv Rao)

12. Assignment of Rights & Obligations; Subcontracting: Vendor is not permitted to subcontract the delivery or any part thereof to third party or to assign the rights and obligations resulting from this agreement in whole or in part to third parties without prior written permission from BHEL. Any permission or approval given by the BHEL shall, however, not absolve the vendor of the responsibility of his obligations under the Contract.
13. Progress report: Vendor shall render such report as to the progress of work and in such form as may be called for by the concerned purchase officer from time to time. The submission and acceptance of such reports shall not prejudice the rights of BHEL in any manner.
14. Non-disclosure and Information Obligations: Vendor shall provide with all necessary information pertaining to the goods as it could be of importance to BHEL. Vendor shall not reveal confidential information that may be divulged by BHEL to Vendor's employees not involved with the tender/ contract & its execution and delivery or to third parties, unless BHEL has agreed to this in writing beforehand. Vendor shall not be entitled to use the BHEL name in advertisements and other commercial publications without prior written permission from BHEL.
15. Cancellation / Termination of contract: BHEL shall have the right to completely or partially terminate the agreement by means of written notice to that effect. Termination of the Contract, for whatever reason, shall be without prejudice to the rights of the parties accrued under the Contract up to the time of termination.
BHEL shall have the right to cancel/foreclose the Order/ Contract, wholly or in part, in case it is constrained to do so, on account of any decline, diminution, curtailment or stoppage of the business.
16. Risk Purchase Clause: In case of failure of supplier, BHEL at its discretion may make purchase of the materials / services NOT supplied / rendered in time at the RISK & COST of the supplier. Under such situation, the supplier who fails to supply the goods in time shall be wholly liable to make good to BHEL any loss due to risk purchase.
In case of items demanding services at site like erection and commissioning, vendor should send his servicemen /representatives within 7 days from the service call. In case a vendor fails to attend to the service call, BHEL at its discretion may also make arrangements to attend such service by other parties at the RISK & COST of the supplier. Under such situation the supplier who fails to attend the service shall be wholly liable to make good to BHEL any loss due to risk purchase / service including additional handling charges due to the change.
17. Shortages: In the event of shortage on receipt of goods and/or on opening of packages at site, all such shortages shall be made good within a reasonable time that BHEL may allow from such intimation and free of cost. In case BHEL raises an insurance claim, the cost of material limited to insurance settled amount less handling charges will have to be reimbursed by the Supplier.
Transit Damages: In the event of receipt of goods in damaged condition or having found them so upon opening of packages at site, Supplier shall make good of all such damages within a reasonable time from such intimation by BHEL. In case BHEL raises an insurance claim, the cost of material limited to insurance settled amount less handling charges will be reimbursed.
18. Remedial work: Notwithstanding any previous test or certification, BHEL may instruct the vendor to remove and replace materials/goods or remove and re-execute works/services which are not in accordance with the purchase order. Similarly BHEL may ask the vendor to supply materials or to execute any services which are urgently required for any safety reasons, whether arising out of or because of an accident, unforeseeable event or otherwise. In such an event, Vendor shall provide such services within a reasonable time as specified by BHEL.
19. Indemnity Clause: Vendor shall comply with all applicable safety regulations and take care for the safety of all persons involved. Vendor is fully responsible for the safety of its personnel or that of his subcontractor's men / property, during execution of the Purchase Order and related services. All statutory payments including PF, ESI or other related charges have to be borne by the vendor. Vendor is fully responsible for ensuring that all legal compliances are followed in course of such employment.


(SVMAS)

20. Product Information, Drawings and Documents: Drawings, technical documents or other technical information received by Vendor from BHEL or vice versa shall not, without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the Disclosing party, otherwise be used or copied, reproduced, transmitted or communicated to third parties. All information and data contained in general product documentation, whether in electronic or any other form, are binding only to the extent that they are by reference expressly included in the contract.

Vendor, as per agreed date/s but not later than the date of delivery, provide free of charge information and drawings which are necessary to permit and enable BHEL to erect, commission, operate and maintain the product. Such information and drawings shall be supplied in as many numbers of copies as may be agreed upon.

All intellectual properties, including designs, drawings and product information etc. exchanged during the formation and execution of the Contract shall continue to be the property of the disclosing party.

21. Intellectual Property Rights, Licenses: If any Patent, design, Trade mark or any other intellectual property rights apply to the delivery (goods / related service) or accompanying documentation shall be the exclusive property of the Vendor and BHEL shall be entitled to the legal use thereof free of charge by means of a non-exclusive, worldwide, perpetual license. All intellectual property rights that arise during the execution of the Purchase Order/ contract for delivery by vendor and/or by its employees or third parties involved by the vendor for performance of the agreement shall belong to BHEL. Vendor shall perform everything necessary to obtain or establish the above mentioned rights. The Vendor guarantees that the delivery does not infringe on any of the intellectual property rights of third parties. The Vendor shall do everything necessary to obtain or establish the alternate acceptable arrangement pending resolution of any (alleged) claims by third parties. The Vendor shall indemnify BHEL against any (alleged) claims by third parties in this regard and shall reimburse BHEL for any damages suffered as a result thereof.

22. Force Majeure: Notwithstanding anything contained in the purchase order or any other document relevant thereto, neither party shall be liable for any failure or delay in performance to the extent said failures or delays are caused by the "Act of God" and occurring without its fault or negligence, provided that, force majeure will apply only if the failure to perform could not be avoided by the exercise of due care and vendor doing everything reasonably possible to resume its performance.

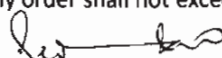
A party affected by an event of force majeure which may include fire, tempest, floods, earthquake, riot, war, damage by aircraft etc., shall give the other party written notice, with full details as soon as possible and in any event not later than seven (7) calendar days of the occurrence of the cause relied upon. If force majeure applies, dates by which performance obligations are scheduled to be met will be extended for a period of time equal to the time lost due to any delay so caused.

Notwithstanding above provisions, in an event of Force Majeure, BHEL reserves for itself the right to cancel the order/ contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements for completion of deliveries and other schedules.


23. Guarantee / Warranty: Wherever required, and so provided in the specifications / Purchaser Order, the Seller shall guarantee that the stores supplied shall comply with the specifications laid down, for materials, workmanship and performance. Unless otherwise specified, guarantee / warranty period shall be 30 months after the date of delivery of goods or 24 months from the date of commissioning of goods whichever is earlier. The guarantee / warranty period as described above shall apply afresh to replaced, repaired or re-executed parts of a delivery. Unless otherwise specifically provided in the Purchase Order, Vendor's liability shall be co terminus with the expiration of the applicable guarantee / warranty period.

24. Limitation of Liability: Vendor's liability towards this contract is limited to a maximum of 100% of the contract value and consequential damages are excluded. However the limits of liability will have no effect in cases of criminal negligence or wilful misconduct.

The total liability of Vendor for all claims arising out of or relating to the performance or breach of the Contract or use of any Products or Services or any order shall not exceed the total Contract price.


(S. V. Rao)


25. Liability during guarantee / warranty: Vendor shall arrange replacement / repair of all the defective materials / services under its obligation under the guarantee / warranty period. The rejected goods shall be taken away by vendor and replaced / repaired. In the event of the vendor's failure to comply, BHEL may take appropriate action including disposal of rejections and replenishment by any other sources at the cost and risk of the vendor.
In case, defects attributable to vendor are detected during first time commissioning or use, vendor shall be responsible for replacement / repair of the goods as required by BHEL at vendor's cost. In all such cases expiry of guarantee / warranty will not be applicable.
26. Liability after guarantee / warranty period: At the end of the guarantee / warranty, the Vendor's liability ceases except for latent defects (latent defects are defects / performance issues notices after the guarantee / warranty has expired). The Contractor's liability for latent defects warranty for the plant and equipment including spares shall be limited to a period of six months from the end of the guarantee / warranty period of the respective plant and equipment including spares or first time commissioning whichever is later but not later than 3 (three) years from the date of shipment.
27. Compliance with Laws: Vendor shall, in performing the contract, comply with all applicable laws. The vendor shall make all remittances, give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the laws in relation to the execution and completion of the contract and for remedying of any defects; and the Contractor shall indemnify and hold BHEL harmless against and from the consequences of any failure to do so.
28. Settlement of Disputes: Except as otherwise specifically provided in the Purchase Order, decision of BHEL shall be binding on the vendor with respect to all questions relating to the interpretation or meaning of the terms and conditions and instructions herein before mentioned and as to the completion of supplies/work/services, other questions, claim, right, matter or things whatsoever in any way arising out of or relating to the contract, instructions, orders or these conditions or otherwise concerning the supply or the execution or failure to execute the order, whether arising during the schedule of supply/work or after the completion or abandonment thereof. Any disputes or differences among the parties shall to the extent possible be settled amicably between the parties thereto, failing which the disputed issues shall be settled through arbitration. Vendor shall continue to perform the contract, pending settlement of dispute(s).
29. Arbitration Clause: In case amicable settlement is not reached in the event of any dispute or difference arising out of the execution of the Contract or the respective rights and liabilities of the parties or in relation to interpretation of any provision in any manner touching upon the Contract, such dispute or difference shall (except as to any matters, the decision of which is specifically provided for therein) be referred by either party to the sole arbitration of an Arbitrator appointed by the Executive Director/ General Manager of the purchasing unit/ region/ division of BHEL. Vendor shall have no objection even if the Arbitrator so appointed is an employee of BHEL or has ever dealt/ had to deal with any matter relating to this Contract.
Subject as aforesaid the provisions of the Arbitration and Conciliation Act, 1996 of India or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceedings under this clause. It is a term of contract that the party initiating arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute. The venue for the arbitration shall be Bangalore, India. The award of the arbitrator shall be a speaking award and shall be final, conclusive and binding on all parties to this contract.
The cost of arbitration shall be borne equally by the parties. Notwithstanding the existence of any dispute or difference or any reference for the arbitration, the vendor shall proceed with and continue without hindrance the performance of the work under the contract with due diligence and expedition in a professional manner.
30. Applicable Laws and Jurisdiction of Courts: Prevailing Indian laws both substantive and procedural, including modifications thereto, shall govern the Contract. Subject to the conditions as aforesaid, the competent courts in BANGALORE alone shall have jurisdiction to consider over any matters touching upon this contract.


(Srdas)

31. General Terms: That any non-exercise, forbearance or omission of any of the powers conferred on BHEL and /or any of its authorities will not in any manner constitute waiver of the conditions hereto contained in these presents.

That the headings used in this agreement are for convenience of reference only.

That all notices etc., to be given under the Purchase order shall be in writing, type script or printed and if sent by registered post or by courier service to the address given in this document shall be deemed to have been served on the date when in the ordinary course, they would have been delivered to the addressee.


(Sv Rao)

32. Fraud Prevention Policy: The bidder along with its associate/collaborators/sub-contractors/sub-vendors/consultants/service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.



ಭಾರತ್ ಹವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
 भारत हेवी इलेक्ट्रिकल्स लिमिटेड

Bharat Heavy Electricals Ltd.,
 (A Government of India undertaking)
 Electronics Division

PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 001- Rev 00

INSTRUCTIONS TO BIDDERS (Common for all RFQs)

Bidder is requested to read the instructions carefully and submit their quotation covering all the points:

A. GENERAL INSTRUCTIONS:

1. Any Purchase Order resulting from this enquiry shall be governed by the Instructions to Bidders (document reference: CE: PR: 001 – Rev 00), General Conditions of Contract (document reference: CE: PR: 002 - Rev 00) and Special Conditions of Contract, if any, of the enquiry.
2. Any deviations from or additions to the “General Conditions of Contract” or “Special Conditions of Contract” require BHEL’s express written consent. The general terms of business or sale of the bidder shall not apply to this tender.
3. Bidders (also includes the term suppliers / contractors wherever used in this document) are instructed to quote their most competitive price and best delivery, etc. in the offer. Prices should be indicated in both figures & words. **(Please also refer clause 11 under section B)**
4. Regret letter (either through post or by mail) indicating reasons for not quoting must be submitted without fail, in case of non-participation in this tender. If a bidder fails to respond against 3 consecutive tenders for the same item, he will be liable for removal as a registered vendor of BHEL.
5. Procurement directly from the manufacturers shall be preferred. However, if the OEM / Principal insist on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer / supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer / supplier or the manufacturer / supplier could bid directly but not both. In case bids are received from the manufacturer / supplier and his agent, bid received from the agent shall be ignored.
6. Consultant / firm (and any of its affiliates) shall not be eligible to participate in the tender/s for the related goods for the same project if they were engaged for consultancy services for the same project.
7. If an Indian representative / associate / liaison office quotes on behalf of a foreign based bidder, such representative shall furnish compulsorily the following documents:
 - a. Authorization letter to quote and negotiate on behalf of such foreign-based bidder.
 - b. Undertaking from such foreign based bidder that such contract will be honored and executed according to agreed scope of supply and commercial terms and conditions.
 - c. Undertaking shall be furnished by the Indian representative stating that the co-ordination and smooth execution of the contract and settlement of shortages / damages / replacement / repair of imported scope till system is commissioned and handed over to customer will be the sole responsibility of the Indian representative / associates / agent / liaison office.
 - d. Refer **Annexure X** on “Guidelines for Indian Agents”.
8. In case of imported scope of supply, customs clearance & customs duty payment will be to BHEL account after the consignment is received at Indian Airport / Seaport. Bidders must provide all original documents required for completing the customs clearance along with the shipment. Warehousing charges due to

incomplete or missing documentation will be recovered from the supplier's bill. All offers for imported scope of supply must be made from any of the gateway ports (within the country) indicated. **(Refer Annexure I)**

9. The offers of the bidders who are on the banned list and also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of the banned firms is available on BHEL website: **www.bhel.com**
10. Business dealings with bidders will be suspended if they are found to have indulged in any malpractices / misconduct which are contrary to business ethics like bribery, corruption, fraud, pilferage, cartel formation, submission of fake/false/forged documents, certificates, information to BHEL or if they tamper with tendering procedure affecting the ordering process or fail to execute a contract, or rejection of 3 consecutive supplies or if their firms / works are under strike / lockout for a long period.

B. GUIDELINES FOR PREPARATION OF OFFER:

1. Quotation shall be submitted in Single Part Bid, Two Part Bid or Three Part Bid, as called for in the tender:
 - **SINGLE PART BID:** Technical and Commercial Bid with prices along with price summary & filled in BHEL Standard Commercial terms and conditions in a single sealed envelope.
 - **TWO PART BID:** Unpriced offer i.e. "Techno-commercial Bid" with filled in BHEL Standard Commercial terms and conditions in a sealed envelope **along with the copy of the "Price Bid" without the prices** should be enclosed in one cover and the cover must be super scribed "**Techno-commercial offer**" and Priced offer i.e. "Price Bid" containing price summary in a separate sealed envelope and must be super scribed "**Price Bid**". Both these envelopes shall be enclosed in a single sealed envelope super scribed with enquiry number due date of tender and any other details as called for in the tender document.
 - **THREE PART BID:** Pre-qualification Bid (Part-I), Techno Commercial Bid with filled in BHEL Standard Commercial terms and conditions (Part-II), and Price Bid (Part-III). All three envelopes shall be enclosed in a single sealed envelope super scribed with enquiry number due date of tender and any other details as called for in the tender document.

If any of the offers (Part I, Part II or Part III) are not submitted before the due date and time of submission or if any part of the offer is incomplete the entire offer of the bidder is liable for rejection.

2. Supplier shall ensure to super scribe each envelope with RFQ number, RFQ Date, RFQ Due date and time, Item Description and Project clearly & boldly. Also mention on the envelope whether it is "Techno Commercial Bid" or "Price Bid" or "Pre-Qualification Bid". Please ensure complete address, department name and purchase executive name is mentioned on the envelope (before dropping in the tender box or handing over) so that the tender is available in time for bid opening.
3. BHEL standard Commercial Terms and Conditions (duly filled, signed & stamped) must accompany Technical-Commercial offer without fail and should be submitted in original only. Xerox copy will not be accepted.
4. Any of the terms and conditions not acceptable to supplier, shall be explicitly mentioned in the Techno-Commercial Bid. If no deviations are brought out in the offer it will be treated as if all terms and conditions of this enquiry are accepted by the supplier without deviation.
5. Deviation to this specification / item description, if any, shall be brought out clearly indicating "DEVIATION TO BHEL SPECIFICATION" without fail, as a part of Techno-Commercial Bid. If no deviations are brought out in the offer it will be treated as if the entire specification of this enquiry is accepted without deviation.
6. Suppliers shall submit one set of original catalogue, datasheets, bill of materials, dimensional drawings, mounting details and / or any other relevant documents called in purchase specification as part of Technical Bid.
7. "Price Bid" shall be complete in all respects containing price break-up of all components along with all

applicable taxes and duties, packing & forwarding charges (if applicable), freight charges (if applicable) etc. Once submitted no modification / addition / deletion will be allowed in the "Price Bid." Bidders are advised to thoroughly check the unit price, total price to avoid any discrepancy.

8. In addition, bidder shall also quote for erection & commissioning charges (E&C charges), documentation charges, service charges, testing Charges (type & routine), training charges, service tax, etc. wherever applicable. The price summary must indicate all the elements clearly.
9. Vendors should indicate "lump sum" charges (including To & Fro Fare, Boarding, Lodging, Local Conveyance etc.) for Supervision of Erection, Commissioning and handing over to customer. The quotation shall clearly indicate scope of work, likely duration of commissioning, pre-commissioning checklist and service tax (if any).
10. Wherever bidders require PAC (Project Authority Certificate) for import of raw materials, components required for Mega Power Projects, Export Projects or other similar projects wherein supplies are eligible for customs duty benefits, lists and quantities of such items and their values (CIF) has to be mentioned in the offer. Prices must be quoted taking into account of such benefits.
11. All quotations shall be free from corrections /overwriting. Corrections if any should be authenticated with signature and seal. Any typographical error, totaling mistakes, currency mistake, multiplication mistake, summing mistakes etc. observed in the price bids will be evaluated as per **Annexure II** "Guidelines for dealing with Discrepancy in Words & Figures – quoted in price bid". BHEL decision will be final.

C. GUIDELINES FOR OFFER SUBMISSION:

1. Offers / Quotations must be dropped in tender box before 13.00 Hrs. on or before due date mentioned in RFQ. The offers are to be dropped in the proper slot of the Tender Box kept in our reception area with caption "CE, SC&PV, DEFENCE." Tenders are opened on 3 days in a week (Monday/Wednesday/Friday). Tender must be deposited in the slot corresponding to the day (Monday - Box no.4/Wednesday - Box no. 6 /Friday - Box no.8) while depositing the offer. **(This clause will not be applicable for e-tenders)**
2. E-Mail / Internet / EDI offers received in time shall be considered only when such offers are complete in all respects. In case of offers received through E-mail, please send the offer to the email ID specified in the SCC of the tender. (Refer to SCC document of tender)
3. In cases where tender documents are bulky, or due to some reasons tender documents are required to be submitted by hand or through posts/couriers, the offers are to be handed over either of the two officers whose names are mentioned in the RFQ. (Refer to SCC document of tender)
4. Tenders will be opened on due date, time and venue as indicated in the RFQ in the presence of bidders at the venue indicated in the RFQ. In case of e-procurement, bidders can see tender results till seven days after due date and time.
5. Vendor will be solely responsible:
 - a. For submission of offers before due date and time. Offers submitted after due date and time will be treated as "Late offers" and will be rejected.
 - b. For submission of offers in the correct compartment of the tender box based on the day of due date (Monday/Wednesday/Friday). Please check before dropping your offer in the correct tender box.
 - c. For depositing offers in proper sealed condition in the tender box. If the bidder drops the tender in the wrong tender box or if the tender document is handed over to the wrong person BHEL will not be responsible for any such delays.
 - d. For offers received through email etc., suppliers are fully responsible for lack of secrecy on information and ensuring timely receipt of such offers in the tender box before due date & time.
 - e. In case of e-tender, all required documents should be uploaded before due date and time. Availability of power, internet connections, etc. will be the sole responsibility of the vendor. Wherever assistance is

needed for submission of e-tenders, help line numbers and executives of service provider of BHEL may be contacted.

Service provider: M-junction

Website address: <https://bheleps.buyjunction.in/>

Helpline no.: 033-66106426/6217/6013/6046/6176 (9:30 am to 5:30 pm)

9163348283/9163348284/9163348285/9163348286/8584008116 (5:30 pm to 8:30 pm)

Purchase Executive / BHEL will not be responsible for any of the activities relating to submission of offer.

D. PROCESSING OFFERS RECEIVED:

1. Any discount / revised offer submitted by the supplier on its own shall be accepted provided it is received on or before the due date and time of offer submission (i.e. Part-I bid). The discount shall be applied on pro-rata basis to all items unless specified otherwise by the bidder.
2. Changes in offers or Revised offers given after Part-I bid opening shall not be considered as a part of the original offer unless such changes / revisions are requested by BHEL.
3. In case there is no change in the technical scope and / or specifications and / or commercial terms & conditions, the supplier will not be allowed to change any of their bids after Technical bids are opened (after the due date and time of tender opening).
4. In case of changes in scope and/ or technical specifications and/ or commercial terms & conditions by BHEL and it accounts for price implications from vendors, all techno-commercially acceptable bidders shall be asked by BHEL (after freezing the scope, technical specifications and commercial terms & conditions) to submit the impact of such changes on their price bid. Impact price will be applicable only for changes in technical specification / commercial conditions by BHEL. The impact price must be submitted on or before the cut-off date specified by BHEL and the original price bid and the price impact bid will be opened together at the time of price bid opening.
5. BHEL EDN reserves the right to adopt Reverse Auction or standard Price Bid Opening procedure for price evaluation, at its discretion. This will be decided after completion of technical evaluation of tender. **(Refer Annexure III for Guidelines for Reverse Auction).**
6. Un-opened bids (including price bids) will be returned to the respective bidders after release of PO and receipt of order acknowledgement from the successful bidder.
7. After receipt of Purchase Order, supplier should submit required documents like drawings, bill of materials, datasheets, catalogues, quality plan, test procedure, type test report , O & M Manuals and / or any other relevant documents as per Specification / Purchase Order, as and when required by BHEL / Customer.
8. Any deviation to the terms and conditions not mentioned in the quotation by supplier in response to this enquiry will not be considered, if put forth subsequently or after issue of Purchase Order, unless clarification is sought for by BHEL EDN and agreed upon in the Purchase Order.
9. Evaluation shall be on the basis of delivered cost (i.e. "Total Cost to BHEL").
"Total Cost to BHEL" shall include total basic cost, packing & forwarding charges, taxes and duties, freight charges, insurance, service tax for services, any other cost indicated by vendor for execution of the contract and loading factors (for non-compliance to BHEL Standard Commercial Terms & Conditions). Benefits arising out of Nil Import Duty on Mega Projects, Physical Imports or such 100% exemptions (statutory benefits), customer reimbursements of statutory duties (like Excise Duty, CST, VAT) will also be taken into account at the time of tender evaluation. (wherever applicable and as indicated in SCC document of tender)

10. For evaluation of offers in foreign currency, the exchange rate (TT selling rate of SBI) shall be taken as under:

Single part bids: Date of tender opening

Two/three part bids: Date of Part-I bid opening

Reverse Auction: Date of Part-I bid opening

In case of Performance Bank Guarantee (PBG) also, exchange rate will be considered as mentioned above for converting foreign currency to Indian currency and vice versa.

If the relevant day happens to be a bank holiday, then the exchange rate as on the previous working day of the bank (SBI) shall be taken.

11. Ranking (L-1, L-2 etc.) shall be done only for the techno-commercially acceptable offers.

E. INFORMATION ON PAYMENT TERMS:

1. All payments will be through Electronic Fund transfer (EFT). Vendor has to furnish necessary details as per BHEL standard format (**Refer Annexure IV**) for receiving all payments through NEFT. (Applicable for Indian vendors only)
2. In case of High Sea Sales transaction, customs clearance of the consignment landed on Indian Sea / Air ports will be done by BHEL based on the original HSS documents provided by vendors. All warehousing charges due to delay in submission of complete and or correct HSS documents to BHEL will be to suppliers account only. Such recovery will be made out of any of the available bills. (**Refer Annexure V**).
3. Statutory deductions, if any, will be made and the deduction certificate shall be issued. In case vendor does not provide PAN details, the TDS deduction shall be at the maximum percentage stipulated as per the provisions of Income Tax Act. (Applicable for Indian vendors only).
Foreign vendors shall submit relevant details of their bankers like Swift Code, Banker's Name & Address etc.
4. Vendors must submit bills & invoices along with required supporting documents in time. Incomplete documentation / delayed submission of invoice / documents will result in corresponding delay in payment.

F. STANDARD PAYMENT TERMS OF BHEL-EDN

Purchase Orders for indigenous procurement

(a) SUPPLY WITH E&C:

- 1) 85% of basic value (excluding E&C charges) + 100% of taxes, duties and freight charges will be paid in 45 days from the date of dispatch or 15 days from the date of submission of complete set of documentation whichever is later.
- 2) 15% of basic value (retention money), (excluding E&C charges) will be paid in 15 days from the date of submission of documents against supplementary invoice with proof of completion of E&C along with E & C charges (if any)

(b) SUPPLY WITH SUPERVISION OF E&C:

- 1) 90% basic value (excluding E&C charges) + 100% of taxes, duties and freight charges will be paid in 45 days from the date of dispatch or 15 days from the date of submission of complete set of documentation whichever is later.
- 2) 10% of basic value (retention money), (excluding E&C charges) will be paid in 15 days from the date of completion of erection and commissioning against supplementary invoice with proof of completion of E&C along with supervision charges (if any)

(c) SUPPLY ONLY:

- 1) 100% of PO value with taxes, duties and freight will be paid in 45 days from the date of dispatch or 15 days from the date of submission of complete set of documentation whichever is later.

Purchase orders for import procurement:**(d) SUPPLY WITH E&C:**

- 1) 85% of the basic value (excluding E&C charges) will be paid in 45 days, against usance draft of 45 days, from the date of AWB/BOL on submission of complete set of documents.
- 2) 15% of basic value (retention money), (excluding E&C charges) will be paid in 15 days from the date of completion of E&C along with E & C charges against supplementary invoice with proof of completion of E&C (if any).

(e) SUPPLY WITH SUPERVISION OF E&C:

- 1) 90% of the value of the order will be paid on the 45th day, against usance draft of 45 days, from the date of AWB/BOL on submission of complete set of documents.
- 2) 10% of basic value (retention money) will be paid in 15 days from the date of completion of erection and commissioning against supplementary invoice with proof of completion of E&C along with supervision charges (if any).

(f) SUPPLY ONLY:

- 1) 100% of PO value will be paid against usance draft of 45 days from the date of dispatch or 15 days from the date of submission of complete set of documents whichever is later.

LOADING FACTORS FOR PAYMENT TERMS:

- 1) For offers received with requests for negotiation of documents through bank loading will be 15% of basic value (all bank charges to be borne by the seller).
(This loading factor is applicable only for purchase orders for indigenous supply).
- 2) In all cases where credit period is 30 days but not in line with the above mentioned standard payment terms offered loading applicable will be 5% of basic value.
(This loading factor is applicable only for purchase orders for indigenous supply).
- 3) For offers received with Letter of Credit payment term in place of sight draft payment term, loading applicable will be 5% of basic value. Additional loading of 5% will be applicable for payment terms as Letter of Credit with usance of less than 45 days.
(This loading factor is applicable only for purchase orders for imported supply).
- 4) For offers received with Sight Draft payment terms with usance of less than 45 days, loading of 5% will be applicable.
(This loading factor is applicable only for purchase orders for imported supply).
- 5) All payment terms with credit period of less than 30 days for indigenous supply and any other variation of payment terms are liable for rejection.
- 6) Standard payment terms indicated in para F (a), (b), (c), (d), (e) and (f) will not attract any loading.

Note 1: Basic value of Purchase Order mentioned above will include all components of the purchase order and will exclude only taxes, duties, freight and E&C charges (wherever applicable).

Wherever the Purchase Order is split into import portion and indigenous portion of supply the retention money will be 15% or 10% (as applicable) of both purchase order values put together.

Note 2: *If the E&C could not be completed till the end of the Warranty period due to reasons not attributable to the supplier, BHEL may consider releasing the retention money to the supplier against Bank Guarantee for equivalent value valid for an initial period of one year.*

G. Bank guarantee (BG) / Performance bank guarantee (PBG):

1. Bank guarantee (BG) / Performance bank guarantee (PBG) will be applicable as called in the tender documents. Such PBG shall be valid for a period of 36 months + claim period of 6 months for a value equal to 10 % of the basic value of the purchase order. No deviation for the duration of PBG / BG will be permitted.
 - a. PBG shall be from any of the BHEL consortium of bankers (**refer Annexure VI**).
 - b. PBGs from nationalized banks are also acceptable.
 - c. PBG should be sent directly by the bank to the dealing executive mentioned in the purchase order located at the address mentioned in the purchase order. PBG should be in the format indicated. (**Refer annexures VII & VIII respectively**). No deviation to these formats will be allowed.
 - d. Confirmation from any of the BHEL consortium of banks or any of the Indian Public Sector Banks is essential for the acceptance of PBGs issued by foreign banks (located outside India).
 - e. Expired BGs / PBGs will be returned only after expiry of the claim period or on completion of the contractual obligation.
 - f. **Non acceptance for submission of PBG will attract loading as indicated below**
 - i. Loading will be equal to the percentage of value for which BG / PBG is not provided. (Ex: if PBG / BG is given for 3 % of the basic value against 10% specified, loading applicable will be 7% (10 – 3 = 7 %). This value will be added to the quoted price while evaluating the lowest offer.

H. PROVISIONS APPLICABLE FOR MSE VENDORS (MICRO AND SMALL ENTERPRISES)

Vendors who qualify as MSE vendors are requested to submit applicable certificates (as specified by the Ministry of Micro, Small and Medium Enterprises) at the time of vendor registration. Vendors have to submit any of the following documents along with the tender documents in the Part I / Technical bid cover to avail the applicable benefits.

- a. Valid NSIC certificate or
- b. Entrepreneur's Memorandum part II (EM II) certificate (deemed valid for 2 years).
- c. EM II certificate with CA certificate (**in the prescribed format given in Annexure IX**) applicable for the year certifying that the investment in plant and machinery of the vendor is within permissible limits as per the MSME Act 2006 for relevant status where the deemed validity is over.
- d. Documents submitted for establishing the credentials of MSE vendors must be valid as on the date of part I / technical bid opening for the vendors to be eligible for the benefits applicable for MSE vendors. Documents submitted after the Part I / Technical bid opening date will not be considered for this tender.

PURCHASE PREFERENCE FOR MSE VENDORS:

- e. MSE vendors quoting within a price band of L1 + 15% shall be allowed to supply up to 20% of the requirement against this tender provided
 1. The MSE vendor matches the L1 price
 2. L1 price is from a non MSE vendor
 3. L1 price will be offered to the nearest vendor nearest to L1 in terms of price ranking (L2 - nearest to L1). In case of non-acceptance by the MSE vendor (L2) next ranking MSE vendor will be offered who is within the L1 + 15% band (if L3 is also within 15% band).
 4. 20% of the 20% (i.e. 4% of the total enquired quantity) will be earmarked for SC/ST owned MSE firms provided conditions as mentioned in (1) and (2) are fulfilled.

5. In case no vendor under SC / ST category firms are meeting the conditions mentioned in (1) and (2) or have not participated in the tender, in such cases the 4% quantity will be distributed among the other eligible MSE vendors who have participated in the tender.
6. Serial no. 1 to 5 will not be applicable wherever it is not possible to split the tendered quantity / items on account of customer contract requirement, or the items tendered are systems. Such information that tendered quantity will not be split will be indicated in the SCC.

I. INTEGRITY COMMITMENT IN THE TENDER PROCESS, AND EXECUTION OF CONTRACTS:

1. Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the Tender process and execution of the Contract. BHEL will, during the tender process, treat all bidder / suppliers in a transparent and fair manner, and with equity.

2. Commitment by Bidder(s)/ Contractor(s):

- a. The Bidder(s)/ Contractor(s) commit(s) to take all measures to prevent corruption and will not directly or indirectly try to influence any decision or benefit which he is not legally entitled to.
- b. The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding or any actions to restrict competition.
- c. The Bidder(s)/ Contractor(s) will not commit any offence under the relevant Acts. The Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain or pass on to others, any information or document provided by BHEL as part of business relationship.
- d. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to the relevant guidelines issued from time to time by Government of India/ BHEL.

If the Bidder(s) / Contractor(s), before award or during execution of the Contract commit(s) a transgression of the above or in any other manner such as to put his reliability or credibility in question, BHEL is entitled to disqualify the Bidder(s) / Contractor (s) from the tender process or terminate the contract and/ or take suitable action as deemed fit.

PURCHASE EXECUTIVE

ANNEXURE - I
LIST OF INTERNATIONAL GATEWAY AIRPORTS

For airbased consignment, terms of delivery will be on FCA basis from following listed airports only. This list is valid from 01.03.2013 to 28.02.2015. Vendors are requested to verify this list for use after 28.02.2015.

SCHEDULE NO	COUNTRY	CURRENCY CODE	AIRPORT
D01	UK	GBP	LONDON (HEATHROW)
D02	UK	GBP	NEW CASTLE
D03	UK	GBP	OXFORD. CHETLAM
D04	UK	GBP	BRISTOL. WELLINGBOROUGH
D05	UK	GBP	BIRMINGHAM
D06	UK	GBP	EAST MIDLANDS
D07	UK	GBP	MANCHESTER
D08	UK	GBP	LEEDS
D09	UK	GBP	GLASGOW
D10	FRANCE	EURO	PARIS (ROISSY) & LYON
D11	SWEDEN	EURO	STOCKHOLM
D12	SWEDEN	EURO	GOTHENBERG & MALMO
D13	ITALY	EURO	ROMA, MILAN
D14	ITALY	EURO	TURIN, BOLOGNA, FLORENCE
D15	NETHERLANDS	EURO	AMSTERDAM, ROTTERDAM
D16	AUSTRIA	EURO	VIENNA, LINZ, GRAZ
D17	BELGIUM	EURO	ANTWERP, BRUSSELS
D18	DENMARK	DKK	COPENHAGEN
D19	JAPAN	JPY	TOKYO, OSAKA
D20	SINGAPORE	SGD	SINGAPORE
D21	CANADA	CAD	TORONTO
D22	CANADA	CAD	MONTREAL
D23	USA	USD	NEW YORK, BOSTON
D24	USA	USD	CHICAGO
D25	USA	USD	SAN FRANCISCO, LOS ANGELES
D26	USA	USD	ALANTA, HOUSTON
D27	GERMANY	EURO	MUNICH, KOLN, DUSSELDORF, HANNOVER, HAMBURG, STUTTGART, DAMSTADT, MANIHIEM, NURUMBERG
D28	GERMANY	EURO	FRANKFURT
D29	GERMANY	EURO	BERLIN
D30	SWITZERLAND	SFR	BASLE, ZURICH, GENEVA
D31	SPAIN	EURO	BARCELONA
D32	AUSTRALIA	AUD	SYDNEY
D33	AUSTRALIA	AUD	MELBOURNE
D34	AUSTRALIA	AUD	PERTH
D35	CZECH	EURO	PRAGUE
D36	HONG KONG	HKD	HONG KONG
D37	NEW ZELAND	NZD	AUCKLAND
D38	RUSSIA	USD	MOSCOW
D39	SOUTH KOREA	USD	KIMPO INTERNATIONAL, INCHEON
D40	FINLAND	EURO	HELSINKI
D41	ROMANIA	EURO	BUCHAREST
D42	NORWAY	EURO	OSLO
D43	IRELAND	EURO	DUBLIN
D44	ISRAEL	USD	TEL AVIV
D45	UAE	USD	DUBAI
D46	OMAN	USD	MUSCAT
D47	EGYPT	USD	CAIRO
D48	TAIWAN	USD	TAIPEI
D49	UKRAINE	USD	KIEV
D50	CHINA	USD	SHANGHAI, SHENZHEN
D51	PHILIPINES	USD	MANILA
D52	MALAYSIA	USD	KUALALUMPUR, PE NANG
D53	CYPRUS	USD	LARNACA
D54	SOUTH AFRICA	USD	JOHANNESBERG, DURBAN
D55	SLOVAKIA	EURO	BARTISLOVA
D56	SAUDI ARABIA	SAR	RIYADH
D57	TURKEY	EURO	ISTANBUL
D58	THAILAND	USD	BANGKOK
D59	BRAZIL	USD	SAO PAULO, RIO DE JANEIRO

ANNEXURE – II
DISCREPANCY IN WORDS & FIGURES – QUOTED IN PRICE BID

Following guidelines will be followed in case of discrepancy in words & figures-quoted in price bid:

(a) If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly, unless in the opinion of the purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price corrected accordingly.

(b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

(c) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

(d) If there is such discrepancy in an offer, the same shall be conveyed to the bidder with target date upto which the bidder has to send his acceptance on the above lines and if the bidder does not agree to the decision of the purchaser, the bid is liable to be ignored.

ANNEXURE-III
GUIDELINES FOR REVERSE AUCTION PROCEDURE

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).

1. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
2. 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.
3. 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.
4. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
5. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
6. Bidders have to fax the Compliance form before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
7. 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 non-compliance 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.
8. Reverse auction will be conducted on scheduled date & time.
9. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
10. 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, as provided on case-to-case basis to Service provider within two working days of Auction without fail.
11. 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.
12. 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.
13. 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.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. 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.

ANNEXURE - IV
Electronic Funds Transfer (EFT) OR
Paylink Direct Credit Form

Please Fill up the form in **CAPITAL LETTERS** only.

TYPE OF REQUEST(Tick one): _____ CREATE _____ CHANGE

BHEL Vendor / Supplier Code:	
Company Name :	
Permanent Account Number(PAN):	
Address	

City:	PINCODE	STATE
-------	---------	-------

Contact Person(s)	
Telephone No:	
Fax No:	
e-mail id:	

1 Bank Name:	
2 Bank Address:	

3 Bank Telephone No:	
4 Bank Account No:	

5 Account Type: Savings/Cash Credit	
6 9 Digit Code Number of Bank and branch appearing on MICR cheque issued by Bank	

7 Bank IFSC Code(applicable for NEFT)	
8 Bank IFSC code(applicable for RTGS)	

(Indian Financial System Code)

- A I hereby certify that the particulars given above are true, correct and complete and that I, as a representative for the above named Company, hereby authorise BHEL, EDN, Bangalore to electronically deposit payments to the designated bank account.
- B If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL / transferring Bank responsible.
- C This authority remains in full force until BHEL, EDN, Bangalore receives written notification requesting a change or cancellation.
- D I have read the contents of the covering letter and agree to discharge the responsibility expected of me as a participant under ECS / EFT.

Date:

Authorised Signatory:

Designation:

Telephone No. with STD Code

Company Seal

Bank Certificate

We certify that _____ has an Account No _____ with us and we confirm that the bank details given above are correct as per our records.

Date:

(.....)

Place:

Signature

Please return completed form **along with a blank cancelled cheque or photocopy** thereof to:

Bharath Heavy Electricals Ltd,

Attn:

Electronics Division, Mysore Road,

BANGALORE - 560 026

In case of any Query, please call concerned purchase executive.

ANNEXURE - V
PRESENT PROCEDURE FOR SALE IN TRANSIT (HIGH SEA SALES)

In case of High Sea Sales, vendor should submit following documents:

1. ORIGINAL HIGH SEA SALES AGREEMENT

- Sale agreement (on Rs. 200/- non-judicial stamp paper & notarised with 2 witnesses with identity) has to be signed between BHEL and the Party importing material. The date of the sale documents should be in between the date of House Air Way Bill / Bill of Lading and before landing of the goods in Indian origin.
- The date of the stamp paper should be prior to the Air Way Bill / Bill of Lading date.
- Following shall be included in the High Sea Sales Agreement:
“THE BUYER ALSO UNDERTAKE DISCHARGES, THE OBLIGATION AND FULFILLMENT OF CONDITIONS, IF ANY, ATTACHED TO THE IMPORTATION, ASSESSMENT AND CLEARANCE OF THE GOODS IN TERMS CUSTOMS TARIFF ACT 1975, THE CUSTOMS ACT 1962 & RULES & REGULATIONS MADE THERE UNDER AND OTHER RELEVANT ACTS, ORDERS, NOTIFICATIONS”.

2. ORIGINAL INVOICES: INDIGENOUS RUPEE INVOICE & FOREIGN CURRENCY INVOICE

- Prices should be C.I.F., designated airport/seaport basis.
- I.E.C., C.S.T., K.S.T. Nos. to be mentioned.
- Description of item (Nomenclature), Unit & Quantity in both the Foreign Currency & the Indigenous Invoice in Rupee shall be exactly as per Purchase Order Description of item, Quantity and Unit. The Indigenous Invoice value shall be exactly as per Purchase Order value.
- Seller should give Foreign Currency Invoice from the original consignor. The Foreign Currency Invoice value should be at least 2% (two per cent) less than the Indigenous Rupee Invoice value in equivalent foreign currency.

4. ORIGINAL HOUSE AIR WAY BILL/ BILL OF LADING

- The sale agents should duly endorse House Air Way Bill (HAWB) for air shipments or original Bill of Lading (O.B.L.) for sea shipments and Foreign Currency Invoice in favour of BHEL-EDN.

5. ORIGINAL CARGO ARRIVAL NOTICE FROM FORWARDER.

6. ORIGINAL DELIVERY ORDER ISSUED IN NAME OF BHEL-EDN.

7. ORIGINAL PACKING LIST.

8. A LETTER TO THE COMMISSIONER OF CUSTOMS FOR EFFECTING ABOVE SALE.

9. A LETTER TO THE DEPUTY ASSESSOR (OCTROI) FOR EFFECTING ABOVE SALE IN FAVOUR OF BHEL.

REMARKS: In case vendor needs any clarifications on the above, the same may be sought in writing.

Annexure-VI
BHEL MEMBER BANKS (LIST OF CONSORTIUM BANKS)

BANK GUARANTEE (BG) SHALL BE ISSUED FROM THE FOLLOWING BANKS ONLY:

	Nationalised Banks		Nationalised Banks
1	Allahabad Bank	19	Vijaya Bank
2	Andhra Bank		Public Sector Banks
3	Bank of Baroda	20	IDBI
4	Canara Bank		Foreign Banks
5	Corporation Bank	21	CITI Bank N.A
6	Central Bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Ltd. (HSBC)
8	Indian Overseas Bank	24	Standard Chartered Bank
9	Oriental Bank of Commerce	25	The Royal Bank of Scotland N.V.
10	Punjab National Bank	26	J P Morgan
11	Punjab & Sindh Bank		Private Banks
12	State Bank of India	27	Axis Bank
13	State Bank of Hyderabad	28	The Federal Bank Limited
14	Syndicate Bank	29	HDFC Bank
15	State Bank of Travancore	30	Kotak Mahindra Bank Ltd
16	UCO Bank	31	ICICI Bank
17	Union Bank of India	32	IndusInd Bank
18	United Bank of India	33	Yes Bank

Note:

- All BGs must be issued from BHEL consortium banks listed above.
- BHEL may accept BG from other Nationalised Banks also which are not listed above.
- BG will not be accepted from Scheduled Banks and Co-operative Banks.
- In case BG is issued from a bank located outside Indian territory and is issued in foreign currency, the BG must be routed through and confirmed by any one of the above mentioned consortium banks or any of the Indian Public Sector Banks.
- This list is subject to changes. Hence vendors are requested to check this list every time before issuing BGs.

ANNEXURE-VII

BANK GUARANTEE FOR PERFORMANCE SECURITY

Bank Guarantee No:

Date:

To

NAME

& ADDRESSES OF THE BENEFICIARY

Dear Sirs,

In consideration of the Bharat Heavy Electricals Limited ¹ (hereinafter referred to as the 'Employer' which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns) incorporated under the Companies Act, 1956 and having its registered office at _____ through its Unit at.....(name of the Unit) having awarded to (Name of the Vendor / Contractor / Supplier) having its registered office at _____² hereinafter referred to as the 'Contractor/Supplier', which expression shall unless repugnant to the context or meaning thereof, include its successors and permitted assigns), a contract Ref No.....dated³ valued at Rs.....⁴ (Rupees -----)/FC.....(in words.....) for⁵ (hereinafter called the 'Contract') and the Contractor having agreed to provide a Contract Performance Guarantee, equivalent to% (.... Percent) of the said value of the Contract to the Employer for the faithful performance of the Contract,

we,, (hereinafter referred to as the Bank), having registered/Head office at and inter alia a branch at being the Guarantor under this Guarantee, hereby, irrevocably and unconditionally undertake to forthwith and immediately pay to the Employer a maximum amount Rs ----- (Rupees -----) without any demur, immediately on a demand from the Employer, . Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____.

We undertake to pay to the Employer any money so demanded notwithstanding any dispute or disputes raised by the Contractor/ Supplier in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the contractors/supplier shall have no claim against us for making such payment.

We thebank 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 said Contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said Contract have been fully paid and its claims satisfied or discharged.

We BANK further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract or to extend time of performance by the said Contractor/Supplier from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor/Supplier and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor/Supplier or for any forbearance, act or omission on the part of the Employer or any indulgence by the Employer to the said Contractor/Supplier or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

The Bank also agrees that the Employer at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee that the Employer may have in relation to the Contractor's liabilities.

This Guarantee shall remain in force upto and including.....⁶ and shall be extended from time to time for such period as may be desired by Employer.

This Guarantee shall not be determined or affected by liquidation or winding up, dissolution or change of constitution or insolvency of the Contractor/Supplier but shall in all respects and for all purposes be binding and operative until payment of all money payable to the Employer in terms thereof.

Unless a demand or claim under this guarantee is made on us in writing on or before the⁷we shall be discharged from all liabilities under this guarantee thereafter.

We, BANK lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.

Notwithstanding anything to the contrary contained hereinabove:

- a) The liability of the Bank under this Guarantee shall not exceed.....⁸
- b) This Guarantee shall be valid up to⁹

c) Unless the Bank is served a written claim or demand on or before _____¹⁰ all rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities under this guarantee irrespective of whether or not the original bank guarantee is returned to the Bank.

We, _____ Bank, have power to issue this Guarantee under law and the undersigned as a duly authorized person has full powers to sign this Guarantee on behalf of the Bank.

For and on behalf of
(Name of the Bank)

Dated.....

Place of Issue.....

¹ NAME AND ADDRESS OF EMPLOYER I.e Bharat Heavy Electricals Limited

² NAME AND ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER.

³ DETAILS ABOUT THE NOTICE OF AWARD/CONTRACT REFERENCE

⁴ PROJECT/SUPPLY DETAILS

⁵ BG AMOUNT IN FIGURES AND WORDS

⁶ VALIDITY DATE

⁷ DATE OF EXPIRY OF CLAIM PERIOD

⁸ BG AMOUNT IN FIGURES AND WORDS.

⁹ VALIDITY DATE

¹⁰ DATE OF EXPIRY OF CLAIM PERIOD

ANNEXURE-VIII

Note for performance bank guarantee:

1. To be executed in Rs. 100/- Non-Judicial stamp paper.
2. To be submitted by issuing bank to Purchase Dept. directly. Please give BHEL address to banker.
3. Do not enclose with Bank document.
4. Modifications and additions/deletions to this BG format shall not be permitted.
5. **In Case of Bank Guarantees submitted by Foreign Vendors-**
 - a. **From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India)** can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.
 - b. **From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)**
 - b.1 In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter- Guarantee by Foreign Bank in favour of the Indian Bank (BHEL's Consortium Bank). It is advisable that all charges for issuance of Bank Guarantee/ counter- Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
 - b.2 **In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank** (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at **sl.no. b.1** will required to be followed.
 - b.3 The BG issued may preferably be subject to Uniform Rules for Demand Guarantees (URDG) 758 (as amended from time to time). In case, of Foreign Vendors, the BG Format provided to them should clearly specify the same.
 - b.4 The BG should clearly specify that the demand or other document can be presented in electronic form.

Annexure - IX
Certificate by Chartered Accountant on Letter Head

This is to certify that M/s
.....(Hereinafter referred to as 'Company')
having its registered office at is registered under MSMED Act 2006,
(Entrepreneur Memorandum No (Part-II dtd
Category: (Micro/Small). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as
on date..... **as per MSMED Act 2006 is as follows:**

- 1. For Manufacturing Enterprises:** Investment in plant and machinery (i.e., original cost excluding land and building and the items specified by the Ministry of Small Industries vide its notification No.S.O.1722 (E) dated October 5, 2006:

- 2. For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006:
Rs.Lacs.

The above investment of Rs. Lacs in within permissible limit of
Rs..... Lacs for.....Micro / Small (Strike off which is not
applicable) Category under MSMED Act 2006.

Date:

(Signature)

Name -

Membership Number -

Seal of Chartered Accountant

Guidelines for Indian Agents
ANNEXURE - X

- Definition of Indian Agent: An Indian Agent of foreign principal is an individual, a partnership, an association of persons, a private or public company, that carries out specific obligation(s) towards processing of BHEL tender or finalization or execution of BHEL's contract on behalf of the foreign supplier.

In case of yes, vendor to note the following and reply accordingly:

- i. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines - which require mandatory submission of an Agency Agreement.
- ii. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of Government of India, issued from time to time.
- iii. The Agency Agreement should specify the precise relationship between the foreign OEM / foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/ associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier/ Indian agent. Any payment, which the agent or associate receives in India or abroad from the OEM, whether as commission or as a general retainer fee should be brought on record in the Agreement and be made explicit in order to ensure compliance to laws of the country.
- iv. Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.
- v. Tax deduction at source is applicable to the agency commission paid to the Indian agent as per the prevailing rules.
- vi. In the absence of any agency agreement, BHEL shall not deal with any Indian agent (authorized representatives / associate / consultant, or by whatever name called) and shall deal directly with the foreign principal only for all correspondence and business purposes.
- vii. The "Guidelines for Indian Agents of Foreign Suppliers" enclosed at annexure -'A' shall apply in all such cases.

- viii. The supply and execution of the Purchase Order (including indigenous supplies/ service) shall be in the scope of the OEM/ foreign principal. The OEM/ foreign principal should submit their offer inclusive of all indigenous supplies/ services and evaluation will be based on 'total cost to BHEL'. In case OEM/ foreign principal recommends placement of order(s) towards indigenous portion of supplies/ services on Indian supplier(s)/ agent on their behalf, the credentials/ capacity/ capability of the Indian supplier(s)/ agent to make the supplies/ services shall be checked by BHEL as per the extant guidelines of Supplier Evaluation, Approval & Review Procedure (SEARP), before opening of price bids. In this regard, details may be checked as per Annexure-B (copy enclosed). It will be the responsibility of the OEM/ foreign principal to get acquainted with the evaluation requirements of Indian supplier/ agent as per SEARP available on www.bhel.com.

The responsibility for successful execution of the contract (including indigenous supplies/ services) lies with the OEM/ foreign principal. All bank guarantees to this effect shall be in the scope of the OEM/ foreign principal.

--X--

Vendor's Signature with Seal

Guidelines for Indian Agents of Foreign Suppliers

- 1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with BHEL shall apply for registration in the registration form in line with SEARP.
- 1.1 Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the Principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/ salary/ retainership being paid by the principal to the agent before the placement of order by BHEL.
- 1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.
- 2.0 **Disclosure of particulars of agents/ representatives in India, if any.**
- 2.1 Tenderers of Foreign nationality shall furnish the following details in their offers:
- 2.1.1 The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is existing Company and details of the same shall be furnished.
- 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
- 2.1.3 Confirmation of the Tenderer that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by BHEL in Indian Rupees only.
- 2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:
- 2.2.1 The Bidder(s)/ Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.
- 2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the Tenderer for himself.
- 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/ remuneration, if any, reserved for the Tenderer in the quoted price(s), may be paid by BHEL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.
- 2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in paragraph 2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by BHEL. Besides this there would be a penalty of banning business dealings with BHEL or damage or payment of a named sum.

Disclaimer Certificate For Deemed Export Benefits

I, (Name & Designation)on behalf of M/s. (Name and address of the supplier) hereby certify that we have supplied the following goods to M/s..... (Name and address of the recipient):

S.No.	Inv. No. & date	Description of goods	Unit	Qty.	Value

1. We are the manufacturer exporters/suppliers and are registered/not registered with Central Excise and have not availed and will not avail CENVAT facility in respect of the input/components used in aforesaid supplies. We have also not availed and will not avail rebate on the inputs/components used in aforesaid supplies.

OR

We are the suppliers and our supporting manufacturer(s) is/are registered/not registered with Central Excise and have not availed and will not avail CENVAT facility in respect of the inputs/components used in aforesaid supplies.

2. We also certify that we have not been issued any Advance Authorization/Duty Free Import Authorization in respect of the aforesaid supplied goods and have not availed any benefit thereon.

3. We further state that we have not drawn nor will draw any benefit for deemed export and we have no objection if M/s..... (Name and address of the recipient) draws the deemed export benefits on the supplies mentioned above. (Required to be given in case benefits are claimed by recipient of goods).

OR

We have not given disclaimer certificate to M/s..... (Name and address of the recipient) and will not give disclaimer certificate, in future, in respect of these supplies for claiming deemed export benefits (Required to be given in case benefits are claimed by DTA suppliers).

GUIDELINES FOR QUOTING IN E-PROCUREMENT SYSTEM

1. **Wherever item required is one set, vendor has to mandatorily give break-up of items as per Bill of material of specification in Techno-commercial bid as attachment and Break-up price for each item in price bid as attachment. In case of difference in total as per Break-up price given and EPS portal price bid, price quoted in EPS portal price bid only will be final and considered for evaluation.**
2. Vendor is requested to fill up the "Global Discount" column of the e-tender price bid if any discount to be offered for consideration of price evaluation. Discount mentioned anywhere else will deemed to be invalid.
3. Price quoted by vendors in the EPS portal price bid will be final and other price quoted anywhere else in the attachment will deemed to be invalid.
4. Final comparative statement will subject to evaluation considering the other price impacts like loading factor and project benefits (refer attached special commercial conditions for project benefit).
5. Tender consists of two projects(North Karanpura and Darlipali) . Item will be evaluated, ranked and ordered on project-wise package basis for each project i.e. All the items for one project in the tender will be evaluated and procured as a SINGLE package. Hence each project (North Karanpura and Darlipali) will be evaluated separately and two separate PO will be issued.



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd.,
(A Government of India undertaking)
Electronics Division
PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 003- Rev 00

SPECIAL COMMERCIAL CONDITIONS OF CONTRACT

Reference is brought to BHEL's Instructions to Bidders (Document Ref: CE: PR: 001- Rev 00) and General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 00). These two documents along with Special Conditions of Contract annexed to this RFQ will form an integral part of the contract as and when the RFQ culminates into a Purchase Order / Contract.

RFQ No: NKR0000117 RFQ Date: As per EPS
Due Date: AS PER EPS Project: NTPC DARLIPALI STPP (2X800MW)
Item Description: Foundation Field Bus System

Purchase Executives: In cases where tender documents are bulky, or due to some reasons tender documents are required to be submitted by hand, the offers are to be handed over to either of the following Purchase Officers: Mr.Nilmani Kumar , Engineer,CE-MM-PR_ or Mr.H D-CHANDRAIAH,Sr.Manager,CE-MM-PR

E-mail IDs: In case offers are sent through E-mail, please send the offers to both of the following email IDs: nilmanikumar@bheledn.co.in& ponnuguru@bheledn.co.in

E-tendering: **Applicable / Not Applicable**

Type of Bid: Three part Bid system (Refer clause B of ITB)

Reverse Auction: **Not Applicable** / Will be intimated during commercial clarifications to technically acceptable vendors.
In case BHEL does not resort to Reverse Auction, the price bids and price impacts (if any) shall be opened as per BHEL's standard practice.

~~**Splitting of tendered quantity to MSE vendors:** The tendered quantity will /will not be split to MSE vendors subject to submission of relevant documents by vendors. Refer clause H of Instructions to Bidders for conditions applicable and for information on documents to be submitted.~~

Destination:a) For indigenous supply - Items are to be directly despatched to BHEL's Site Office or Stores/Customer's Stores located at/near **NTPC DARLIPALI PROJECT SITE, NEAREST BIG CITY/LAND MARK JHARSUGUDA IN ODISHA STATE**. Road Permit, if applicable, will be issued by BHEL along with Despatch Clearance.

b) For Import supply – Port of discharge will be Chennai-Seaport and port of delivery will be ICD-Bangalore

Project Benefits:

Indigenous scope of supply:

- Project is Deemed Export contract, Mega Power Project or Ultra Mega Power Project: Eligible for "NIL" Excise Duty. Necessary documents for availing Excise Duty exemption by suppliers will be furnished by BHEL.
 - Physical Export project: Eligible for complete exemption of Excise Duty & Sales Tax. Necessary documents for availing such benefits will be furnished by BHEL to suppliers.
- Imported scope of supply:**
 - Merit Duty is applicable
 - Project is Mega Power Project or Ultra Mega Power Project: Eligible for "NIL" Customs Duty.
 - Physical Export project: Eligible for complete exemption of Customs Duty.

Terms of Delivery:

Indicate station of despatch:

Indicate place of manufacturing (wherever applicable): _____

- Indigenous scope of supply:** Ex-works (including Packing & Forwarding charges but excluding Taxes & Duties):

- **Imported scope of supply: C.I.F-Bangalore (For Air Consignment)/C.I.F.-Chennai** (Including Packing, Forwarding, Handling, Ancillary charges like processing of Sight Draft/ Letter of Credit, negotiation of bank documents, Export declaration, Country of Origin etc): _____

S NO.	TERMS	BHEL ACCEPTABLE TERM	BIDDER'S CONFIRMATION	DEVIATION IF ANY
01	Validity	The offer will be valid for a period of 120 days from the date of technical bid opening.	AGREE	
02	Excise Duty & Cess	<p>If applicable, indicate current rate of Excise Duty and maximum rate of Excise Duty (against proof of Excise Invoice).</p> <p>However, for calculation purpose and arriving at "Total Cost to BHEL" maximum rate of Excise Duty will be considered. In case Excise Duty remains firm throughout the contract, the same shall be specifically indicated. Otherwise, maximum Excise Duty will be considered for arriving at lowest bidder.</p> <p>However, reimbursement of Excise Duty shall be at actuals against proof of Excise Invoice only. (Within contractual delivery).</p> <p>Physical export contract eligible for complete exemption of Excise duty against submission of necessary documents by BHEL like ARE 1/CT 1 form.</p>	<p>APPLICABLE / NOT APPLICABLE</p> <p>Present rate of Excise Duty with CESS%</p> <p>Maximum rate of Excise Duty with CESS%</p>	
03	Central Sales Tax (CST)	<p>If applicable, indicate current rate of sales tax against form "C".</p> <p>For issue of original form "C", vendor has to furnish "E1/E2" form. To enable vendor give E1/E2 form, photocopy of C form will be issued by BHEL.</p> <p>Please confirm submission of "E1/E2 Sale form".</p> <p>For physical export project, Sales Tax is exempted against necessary documents furnished by BHEL.</p>	<p>APPLICABLE / NOT APPLICABLE</p> <p>Present Sales Tax rate against form "C" %</p> <p>CONFIRMED</p>	
04	Value Added Tax (VAT)	<p>If applicable, indicate current rate of VAT.</p> <p>When VAT is applicable, BHEL ROD's/ Nodal Agency's Name, TIN No. and address to be indicated in invoice. (Note that two original invoice and one tax invoice should be submitted to BHEL).</p>	<p>APPLICABLE / NOT APPLICABLE</p> <p>VAT rate at present %</p> <p>NOTED</p>	
05	Octroi	If applicable, indicate current rate of octroi.	<p>AGREE</p> <p>Present Octroi rate%</p>	
06	Freight Charges (for indigenous scope of supply)	<p>Freight charges shall be to vendor's account.</p> <p>Quote lumpsum reasonable Freight charges separately in priced offer, plus service tax if any.</p> <p>Vendor's offer will be evaluated on "Total cost basis" including freight charges.</p> <p>Vendor shall book the consignment through their approved Road carriers on "Freight pre-paid" and door delivery consignee copy attached basis. Freight charges to be claimed from BHEL along with POD (Proof of Delivery) on original L/R.</p>	<p>AGREED</p> <p>and quoted as lumpsum amount in price bid.</p> <p>Service Tax ____% (extra /inclusive in freight charges)</p>	
07	Service Tax on E&C and Training Charges	<p>If applicable, indicate current rate of Service Tax _____%</p> <p>Service Tax Regn. No. _____</p>	<p>APPLICABLE / NOT APPLICABLE</p>	

		Confirmation that Service Tax register is maintained.	CONFIRMED	
08	Parting of license for imported raw materials	<p>In case of Mega project, Ultra Mega project and Physical Export project where Custom Duty and Excise Duty are NIL and vendor is importing any raw materials / components for the enquired item, same are eligible for Zero Customs duty. As per EXIM policy, BHEL will part the import licence with the vendors to obtain import licence by themselves and custom clear the raw materials/ components by availing zero customs duty. Hence, please furnish list of raw materials / components to be imported by you with Quantity and CIF value (for which BHEL has to share import licence). The benefit due to the above shall be passed on to BHEL and confirmed in the quotation.</p> <p>If there are no imported raw materials/components, same shall be confirmed in the offer.</p>	<p>AGREE</p> <p>— CIF value</p> <p>Yes, benefit passed on to BHEL in the priced quotation.</p> <p>We confirm that there are no imported components.</p>	
09	Delivery Period	Within 08 weeks from the date of issue of approved documents or manufacturing clearance by BHEL, whichever is later.	AGREE weeks	
10	Guarantee/ Warranty	24 months from the date of delivery of goods or 18 months from the date of commissioning of goods, whichever is earlier.	AGREE	
11	Inspection agency	Materials will be inspected by : <ul style="list-style-type: none"> • BHEL • Customer/Consultant/BHEL nominated Third Party Inspection Agency (TPIA) 	AGREE	
12	Terms of Payment at the time of material supply	<p>Refer Clause "F" of Instructions to Bidder for BHEL standard Payment terms and loading factors applicable for non-compliance against payment terms:</p> <hr/> <p>Indigenous Scope: a) Supply with E&C b) Supply with Supervision of E&C c) Supply only Imported Scope: d) Supply with E&C e) Supply with Supervision of E&C f) Supply only</p> <p>Note: Kindly indicate if High Sea Sales will be operated. If yes, confirm submission of relevant documents as per Annexure V.</p>	<p>AGREE</p> <p>YES / NO</p> <p>CONFIRMED</p>	
13	Performance Bank Guarantee (PBG)	PBG will be applicable for a period of 24 months + claim period of 6 months for a value equal to 10% of the basic value of the purchase order. Refer Clause "G" of Instructions to Bidders.	AGREE	
14	Terms of Payment not related to material supply	<p>For Training: 100% will be paid in 45 days from the date of completion of Training or 15 days from the date of submission of complete set of documentation, whichever is later. Separate invoice shall be submitted for Training charges along with documentary evidence.</p> <p>For Engineering & Documentation Charges: 100% will be paid in 45 days from the date of approval of final documents or 15 days from the date of submission of invoice, whichever is later. Separate invoice to be submitted for Engineering & documentation charges.</p>	AGREE	
15	Mode of despatch	Indigenous Scope: By Road on Door Delivery Consignee Copy attached basis	AGREE	

		through your approved transporter (unless otherwise indicated in Despatch Instructions), only on receipt of Despatch Clearance from BHEL. Imported Scope: By Air/Sea through BHEL approved Consolidator/Freight Forwarder, only on receipt of Despatch Clearance from BHEL.		
16	Despatch Documents	Complete set of despatch documents (original + 1 photocopy set) as per Purchase Order shall be forwarded to BHEL directly. Depending upon the project/customer demands, despatch documents may include one or more documents from the following: Commercial Invoice, Excise Invoice (if ED is applicable), Lorry Receipt (L/R), Packing List, Air Way Bill (AWB), Country of origin certificate, Warranty Certificate, Insurance Intimation letter, NIL Short Shipment Certificate, Original Performance Bank Guarantee (directly from issuing bank to BHEL), POD (Proof of Delivery) on original L/R, Disclaimer Certificate (as per BHEL format attached as Annexure XI) along with ER-1 form & attested excise invoice (as per project demands like Nuclear Power plant) etc. The precise list of despatch documents needed for a particular project will be specified in the Purchase Order. One set of Invoice, Packing List and L/R or AWB shall be e-mailed/faxed immediately to BHEL-EDN after despatch.	AGREE	
17	O & M Manuals	As built Drawings, O & M Manuals and other approved documents shall be furnished in required no. of sets as per Specification/Purchase Order. Note: Supply of above documents (O&M) in required no. of sets along with material shall be indicated in packing list. If not mentioned BHEL may insist for submission in required sets once again.	AGREE	
18	Quantity Tolerance	If applicable, indicate Quantity tolerance for each of the line item. For Impulse/seamless/ GI pipes one random length applicable for each variety of pipes.	CONFIRMED	Quantity Tolerance % Per Variety
19	Evaluation criteria for tendered item	Itemwise evaluation of tendered item. Splitting of tendered quantity to MSE vendors (if any) is applicable. OR Tender consists of two projects(North Karanpura and Darlipali) . Item will be evaluated, ranked and ordered on project-wise package basis for each project i.e. All the items for one project in the tender will be evaluated and procured as a SINGLE package. Hence each project (North Karanpura and Darlipali) will be evaluated separately and two separate PO will be issued.	AGREE	
20	Integrity Commitment	Integrity commitment will be applicable in the tender process and execution of contracts as mentioned in clause "1" of Instructions to Bidders.	AGREE	

With this, it is inferred that vendor has understood and accepts all terms & conditions as indicated in Instructions to Bidders (Document Ref: CE: PR: 001- Rev 00) & General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 00).

VENDOR'S SIGNATURE WITH SEALNOTE:

The above filled-in and signed-sealed document (in original) shall be furnished as part of Part-I Bid without fail. If no deviations are brought, it will be treated as if all terms and conditions of this enquiry are accepted by vendor without any deviation.



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड
Bharat Heavy Electricals Ltd.,
(A Government of India undertaking)
Electronics Division
PB 2606 , Mysore Road Bangalore , 560026 INDIA

CE: PR: 003- Rev 00

SPECIAL COMMERCIAL CONDITIONS OF CONTRACT

Reference is brought to BHEL's Instructions to Bidders (Document Ref: CE: PR: 001- Rev 00) and General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 00). These two documents along with Special Conditions of Contract annexed to this RFQ will form an integral part of the contract as and when the RFQ culminates into a Purchase Order / Contract.

RFQ No: NKR0000117

RFQ Date: As per EPS

Due Date: AS PER EPS

Project: North Karanpura STPP 3X660MW

Item Description: Foundation Field Bus System

Purchase Executives: In cases where tender documents are bulky, or due to some reasons tender documents are required to be submitted by hand, the offers are to be handed over to either of the following Purchase Officers: Mr.Nilmani Kumar , Engineer,CE-MM-PR_or Mr.H D-CHANDRAIAH,Sr.Manager,CE-MM-PR

E-mail IDs: In case offers are sent through E-mail, please send the offers to both of the following email IDs: nilmanikumar@bheledn.co.in& ponnuguru@bheledn.co.in

E-tendering: **Applicable / Not Applicable**

Type of Bid: Three part Bid system (Refer clause B of ITB)

Reverse Auction: **Not Applicable** / Will be intimated during commercial clarifications to technically acceptable vendors.
In case BHEL does not resort to Reverse Auction, the price bids and price impacts (if any) shall be opened as per BHEL's standard practice.

Splitting of tendered quantity to MSE vendors: The tendered quantity will /will not be split to MSE vendors subject to submission of relevant documents by vendors. **Refer clause H of Instructions to Bidders for conditions applicable and for information on documents to be submitted.**

Destination:a) For indigenous supply - Items are to be directly despatched to BHEL's Site Office or Stores/Customer's Stores located at/near **Tandwa Town, Chatra District, Jharkhand State (Nearest Railway Station – Khalari)**. Road Permit, if applicable, will be issued by BHEL along with Despatch Clearance.

b) For Import supply – Port of discharge will be Chennai-Seaport and port of delivery will be ICD-Bangalore

Project Benefits:

Indigenous scope of supply:

- Project is Deemed Export contract, Mega Power Project or Ultra Mega Power Project: Eligible for "NIL" Excise Duty. Necessary documents for availing Excise Duty exemption by suppliers will be furnished by BHEL.
 - Physical Export project: Eligible for complete exemption of Excise Duty & Sales Tax. Necessary documents for availing such benefits will be furnished by BHEL to suppliers.
- Imported scope of supply:**
 - Merit duty will be applicable
 - Project is Mega Power Project or Ultra Mega Power Project: Eligible for "NIL" Customs Duty.
 - Physical Export project: Eligible for complete exemption of Customs Duty.

Terms of Delivery:

Indicate station of despatch:

Indicate place of manufacturing (wherever applicable): _____

- Indigenous scope of supply:** Ex-works (including Packing & Forwarding charges but excluding Taxes & Duties): _____

- **Imported scope of supply: C.I.F-Bangalore (For Air Consignment)/C.I.F.-Chennai** (Including Packing, Forwarding, Handling, Ancillary charges like processing of Sight Draft/ Letter of Credit, negotiation of bank documents, Export declaration, Country of Origin etc): _____

S NO.	TERMS	BHEL ACCEPTABLE TERM	BIDDER'S CONFIRMATION	DEVIATION IF ANY
01	Validity	The offer will be valid for a period of 120 days from the date of technical bid opening.	AGREE	
02	Excise Duty & Cess	<p>If applicable, indicate current rate of Excise Duty and maximum rate of Excise Duty (against proof of Excise Invoice).</p> <p>However, for calculation purpose and arriving at "Total Cost to BHEL" maximum rate of Excise Duty will be considered. In case Excise Duty remains firm throughout the contract, the same shall be specifically indicated. Otherwise, maximum Excise Duty will be considered for arriving at lowest bidder.</p> <p>However, reimbursement of Excise Duty shall be at actuals against proof of Excise Invoice only. (Within contractual delivery).</p> <p>Physical export contract eligible for complete exemption of Excise duty against submission of necessary documents by BHEL like ARE 1/CT 1 form.</p>	<p>APPLICABLE / NOT APPLICABLE</p> <p>Present rate of Excise Duty with CESS%</p> <p>Maximum rate of Excise Duty with CESS%</p>	
03	Central Sales Tax (CST)	<p>If applicable, indicate current rate of sales tax against form "C".</p> <p>For issue of original form "C", vendor has to furnish "E1/E2" form. To enable vendor give E1/E2 form, photocopy of C form will be issued by BHEL.</p> <p>Please confirm submission of "E1/E2 Sale form".</p> <p>For physical export project, Sales Tax is exempted against necessary documents furnished by BHEL.</p>	<p>APPLICABLE / NOT APPLICABLE</p> <p>Present Sales Tax rate against form "C" %</p> <p>CONFIRMED</p>	
04	Value Added Tax (VAT)	<p>If applicable, indicate current rate of VAT.</p> <p>When VAT is applicable, BHEL ROD's/ Nodal Agency's Name, TIN No. and address to be indicated in invoice. (Note that two original invoice and one tax invoice should be submitted to BHEL).</p>	<p>APPLICABLE / NOT APPLICABLE</p> <p>VAT rate at present %</p> <p>NOTED</p>	
05	Octroi	If applicable, indicate current rate of octroi.	<p>AGREE</p> <p>Present Octroi rate%</p>	
06	Freight Charges (for indigenous scope of supply)	<p>Freight charges shall be to vendor's account.</p> <p>Quote lumpsum reasonable Freight charges separately in priced offer, plus service tax if any.</p> <p>Vendor's offer will be evaluated on "Total cost basis" including freight charges.</p> <p>Vendor shall book the consignment through their approved Road carriers on "Freight pre-paid" and door delivery consignee copy attached basis. Freight charges to be claimed from BHEL along with POD (Proof of Delivery) on original L/R.</p>	<p>AGREED</p> <p>and quoted as lumpsum amount in price bid.</p> <p>Service Tax ____% (extra /inclusive in freight charges)</p>	
07	Service Tax on E&C and Training Charges	<p>If applicable, indicate current rate of Service Tax _____%</p> <p>Service Tax Regn. No. _____</p>	<p>APPLICABLE / NOT APPLICABLE</p>	

		Confirmation that Service Tax register is maintained.	CONFIRMED	
08	Parting of license for imported raw materials	<p>In case of Mega project, Ultra Mega project and Physical Export project where Custom Duty and Excise Duty are NIL and vendor is importing any raw materials / components for the enquired item, same are eligible for Zero Customs duty. As per EXIM policy, BHEL will part the import licence with the vendors to obtain import licence by themselves and custom clear the raw materials/ components by availing zero customs duty. Hence, please furnish list of raw materials / components to be imported by you with Quantity and CIF value (for which BHEL has to share import licence). The benefit due to the above shall be passed on to BHEL and confirmed in the quotation.</p> <p>If there are no imported raw materials/components, same shall be confirmed in the offer.</p>	<p>AGREE</p> <p>— CIF value</p> <p>Yes, benefit passed on to BHEL in the priced quotation.</p> <p>We confirm that there are no imported components.</p>	
09	Delivery Period	<p>Delivery schedule will be as below - Unit 1- Within 08 weeks from the date of issue of approved documents or manufacturing clearance by BHEL, whichever is later.</p> <p>For unit 2, 3 and spares required delivery is as below – Unit -2 – January 2017 Unit – 3 – July 2017 Spares – July 2017</p> <p>Based on project requirement Separate manufacturing clearance will be issued for Unit 2, 3 and mandatory spares. For all the penalty calculation delivery schedule will be taken as Within 08 weeks from the date of issue of approved documents or manufacturing clearance by BHEL for respective unit, whichever is later.</p>	<p>AGREE</p> <p>..... weeks</p>	
10	Guarantee/ Warranty	24 months from the date of delivery of goods or 18 months from the date of commissioning of goods, whichever is earlier.	AGREE	
11	Inspection agency	<p>Materials will be inspected by :</p> <ul style="list-style-type: none"> • BHEL • Customer/Consultant/BHEL nominated Third Party Inspection Agency (TPIA) 	AGREE	
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13	Performance Bank Guarantee (PBG)	<p>PBG will be applicable for a period of 24 months + claim period of 6 months for a value equal to 10% of the basic value of the purchase order.</p> <p>Refer Clause "G" of Instructions to Bidders.</p>	AGREE	

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15	Mode of despatch	<p>Indigenous Scope: By Road on Door Delivery Consignee Copy attached basis through your approved transporter (unless otherwise indicated in Despatch Instructions), only on receipt of Despatch Clearance from BHEL.</p> <p>Imported Scope: By Air/Sea through BHEL approved Consolidator/Freight Forwarder, only on receipt of Despatch Clearance from BHEL.</p>	AGREE	
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17	O & M Manuals	<p>As built Drawings, O & M Manuals and other approved documents shall be furnished in required no. of sets as per Specification/Purchase Order.</p> <p>Note: Supply of above documents (O&M) in required no. of sets along with material shall be indicated in packing list. If not mentioned BHEL may insist for submission in required sets once again.</p>	AGREE	
18	Quantity Tolerance	<p>If applicable, indicate Quantity tolerance for each of the line item.</p> <p>For impulse/seamless/ GI pipes one random length applicable for each variety of pipes.</p>	CONFIRMED	Quantity Tolerance % Per Variety
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		procured as a SINGLE package. Hence each project (North Karanpura and Darlipali) will be evaluated separately and two separate PO will be issued.		
20	Integrity Commitment	Integrity commitment will be applicable in the tender process and execution of contracts as mentioned in clause "1" of Instructions to Bidders.	AGREE	

With this, it is inferred that vendor has understood and accepts all terms & conditions as indicated in Instructions to Bidders (Document Ref: CE: PR: 001- Rev 00) & General Commercial Conditions for Contract (Document Ref: CE: PR: 002- Rev 00).

VENDOR'S SIGNATURE WITH SEAL

NOTE: The above filled-in and signed-sealed document (in original) shall be furnished as part of Part-I Bid without fail. If no deviations are brought, it will be treated as if all terms and conditions of this enquiry are accepted by vendor without any deviation.