

OPEN TENDER CHECKLIST

BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES

FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS

Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT 39394)

Sl. No.	Document Name	Vendor Confirmation (Filled and Signed copy to be submitted along with Techno Commercial Offer)
01	Annexure A COVERING LETTER	Submitted ☐ Not Submitted ☐
02	Annexure B GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)	Submitted ☐ Not Submitted ☐
03	Annexure C COMMERCIAL TERMS AND CONDITIONS	Submitted ☐ Not Submitted ☐
04	Annexure D UN PRICED /PRICE OFFER FORMAT	Submitted ☐ Not Submitted ☐
05	Annexure E SPECIFICATION DEVIATION DISPOSITION REPORT	Submitted ☐ Not Submitted ☐
06	Annexure F CEBG	Submitted ☐ Not Submitted ☐
07	Annexure G Online SRF	Submitted ☐ Not Submitted ☐
08	Annexure H TERMS AND CONDITIONS FOR OFFER	Submitted ☐ Not Submitted ☐
09	Annexure I PAYMENT MECHANISM	Submitted ☐ Not Submitted ☐
10	TECHNICAL SPECIFICATION FOR BFV & CHECK VALVES ROS 6214 REV 00 DATE 25.05.2018	Submitted ☐ Not Submitted ☐
11	TECHNICAL SPECIFICATION FOR PNEUMATIC FLOW CONTROL & ON/OFF ACTUATOR ROS 4205 REV 02 DATE 25.05.2018	Submitted ☐ Not Submitted ☐
12	PRE-QUALIFICATION REQUIREMENT FOR BFV & CHECK VALVES RWT80643:BFPQ DATE 19.05.2018	Submitted ☐ Not Submitted ☐
13	SUB VENDOR QUESTIONNAIRE	Submitted ☐ Not Submitted ☐



Bharat Heavy Electricals Limited

Boiler Auxiliaries Plant

RANIPET – 632 406, Tamil Nadu, India

MM – WATER SYSTEM & FGD

ANNEXURE - A
BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES
FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS

Enquiry No.: 7780409E Dated 21-JUN-18 (NIT_39394)

Due on: 12-JUL-18

To All [Manufacturers only.](#)

Dear Sir,

Please submit your lowest quotation on FIRM PRICE, in duplicate subject to our terms & conditions in the various annexures attached and herein for the below listed materials so as to reach us on or before the due date by 2.00 p.m.

Requirement with Delivery date-FOR SUPPLY:

Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
001	RWT806430001 PNEUMATIC ON/OFF BUTTERFLY VALVE OF SIZE DN100, PN10 AS PER SL NO.1 OF TABLE- B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	41.00	24.12.2018
002	RWT806430002 MANUAL BUTTERFLY VALVE OF SIZE DN100, PN10 LEVER OPERATED AS PER SL NO.2 OF TABLE -B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	4.00	24.12.2018
003	RWT806430003 MANUAL BUTTERFLY VALVE OF SIZE DN150, PN10 AS PER SL NO. 3 OF TABLE-B OF ANNEXURE -1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	5.00	24.12.2018
004	RWT806430004 PNEUMATIC ON-OFF BUTTERFLY VALVE DN80, PN10 AS PER SL NO. 4 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	11.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
005	RWT806430005 PNEUMATIC ON / OFF BUTTERFLY VALVE DN150,PN10 LEVER OPERATED AS PER SL NO. 5 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	2.00	24.12.2018
006	RWT806430006 MANUAL BUTTERFLY VALVE OF SIZE DN200, PN10 AS PER SL NO.6 OF TABLE -B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	4.00	24.12.2018
007	RWT806430007 MANUAL BUTTERFLY VALVE DN250, PN10 GEAR WITH HAND WHEEL AS PER SL NO. 7 OF TABLE- B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	14.00	24.12.2018
008	RWT806430008 PNEUMATIC FLOW CONTROL BUTTERFLY VALVE OF SIZE DN250 AS PER SL NO. 8 OF TABLE- B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	10.00	24.12.2018
009	RWT806430009 PNEUMATIC ON/OFF BUTTERFLY VALVE DN250, PN10 AS PER SL NO. 9 OF TABLE- B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	24.00	24.12.2018
010	RWT806430012 PNEUMATIC ON/OFF BUTTERFLY VALVE OF SIZE DN300, PN10	ST	21.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
	AS PER SL NO.10 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018			
011	RWT806430013 MANUAL BUTTERFLY VALVE OF SIZE DN300, PN10, GEAR WITH HAND WHEEL OPERATED AS PER SL NO.11 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	20.00	24.12.2018
012	RWT806430014 MANUAL BUTTERFLY VALVE OF SIZE DN350, PN10, GEAR WITH HAND WHEEL OPERATED AS PER SL NO.12 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	2.00	24.12.2018
013	RWT806430015 MANUAL BUTTERFLY VALVE OF SIZE DN400, PN10, WITH OPEN CLOSE LIMIT SWITCH AS PER SL NO. 13 OF TABLE -B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	6.00	24.12.2018
014	RWT806430016 MANUAL BUTTERFLY VALVE OF SIZE DN300, PN10, WITH LIMIT SWITCH WITH HAND WHEEL OPERATED AS PER SL NO. 14 TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	2.00	24.12.2018
015	RWT806430017 PNEUMATIC ON / OFF BUTTERFLY VALVE OF SIZE DN350, PN10 WITH ACTAUTOR, HAND WHEEL OPERATED	ST	10.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
	AS PER SL NO.15 OF TABLE -B OF ANNEXURE- 1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018			
016	RWT806430019 WAFFER TYPE SWING CHECK VALVE OF DN150, PN10 AS PER SL NO.16 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	2.00	24.12.2018
017	RWT806430020 WAFFER TYPE SWING CHECK VALVE OF SIZE DN300, PN10 AS PER SL NO. 17 OF TABLE -B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	2.00	24.12.2018
018	RWT806430021 WAFFER TYPE SWING CHECK VALVE OF SIZE DN100, PN10 AS PER SL NO.18 OF TABLE- B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	20.00	24.12.2018
019	RWT806430022 WAFFER TYPE SWING CHECK VALVE OF SIZE DN350, PN10 AS PER SLNO.19 OF TABLE-B OF ANNEXURE -1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	1.00	24.12.2018
020	RWT806430023 WAFFER TYPE SWING CHECK VALVE DN400, PN10 AS PER SL NO.20 OF TABLE- B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	8.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
021	RWT806430024 PNEUMATIC ON/OFF BUTTERFLY VALVE OF SIZE DN100, PN10, AS PER SL NO.1 OF TABLE-C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
022	RWT806430024 MANUAL BUTTERFLY VALVE DN100, PN10, LEVER OPERATED AS PER SL NO.2 OF TABLE -C OF ANNEXURE -1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	1.00	24.12.2018
023	RWT806430026 PNEUMATIC ON / OFF BUTTERFLY VALVE DN80, PN10, LEVER OPERATED AS PER SL NO.3 OF TABLE- C OF ANNEXURE -1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
024	RWT806430027 PNEUMATIC ON/OFF BUTTERFLY VALVE OF SIZE DN150, PN10 AS PER SL NO. 4 OF TABLE-B OF ANNEXURE-I OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
025	RWT806430028 MANUAL BUTTERFLY VALVE DN150, PN10, LEVER OPERATED AS PER SL NO.5 OF TABLE-C OF ANNEXURE -1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	1.00	24.12.2018
026	RWT806430029 MANUAL BUTTERFLY VALVE OF SIZE DN200, PN10	ST	1.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
	AS PER SL NO.6 OF TABLE-C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018			
027	RWT806430030 PNEUMATIC ON/OFF BUTTERFLY VALVE OF SIZE DN250, PN 10 AS PER SL NO.7 OF TABLE-C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
028	RWT806430031 MANUAL BUTTERFLY VALVE OF DN250, PN10, GEAR WITH HAND WHEEL OPERATED AS PER SL NO. 8 OF TABLE- C OF ANNEXURE -1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	1.00	24.12.2018
029	RWT806430032 PNEUMATIC ON/OFF BUTTERFLY VALVE OF SIZE DN300, PN10 AS PER SL NO.9 OF TABLE- C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
030	RWT806430033 MANUAL BUTTERFLY VALVE WITH LIMIT SWITCH OF SIZE DN300, PN10 AS PER SL NO. 10 OF TABLE-C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	1.00	24.12.2018
031	RWT806430034 MANUAL BUTTERFLY VALVE OF SIZE DN350, PN10 GEAR WITH HAND WHEEL OPERATED AS PER SL NO.11 OF TABLE -C OF ANNEXURE -1 OF	ST	1.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
	TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018			
032	RWT806430035 WAFERT TYPE SWING CHECK VALVE OF SIZE DN100,PN10 AS PER SL NO.12 OF TABLE-C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	1.00	24.12.2018
033	RWT806430036 WAFER TYPE SWING CHECK VALVE OF SIZE DN150, PN10 AS PER SL NO.13 OF TABLE- C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018 (MANDATORY SPARE).	ST	1.00	24.12.2018
034	RWT806430037 WAFER TYPE SWING CHECK VALVE OF SIZE DN300, PN10 AS PER SL NO.14 OF TABLE - C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
035	RWT806430039 WAFER TYPES WING CHECK VALVE OF SIZE DN350, PN10 AS PER SL NO.15 OF TABLE - C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018.	ST	1.00	24.12.2018
036	RWT806430040 WAFER TYPE SWING CHECK VALVE OF SIZE DN400, PN10 AS PER SL NO.16 OF TABLE -C OF ANNEXURE- 1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	1.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
037	RWT806430041 SMART POSITIONER UNIT FOR SL NO.8 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018 AS SPARE.	ST	1.00	24.12.2018
038	RWT806430042 MANUAL BUTTERFLY VALVE OF SIZE DN400, PN10 GEAR WITH HAND WHEEL OPERATED AS PER SL NO.21 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018	ST	9.00	24.12.2018
039	RWT806430043 PNEUMATIC ON / OFF BUTERFLY VALVE OF SIZE DN350, PN10 WITH ACTUATOR, HAND WHEEL OPERATED AS PER SL NO.18 OF TABLE-C OF ANNEXURE - 1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	1.00	24.12.2018
040	RWT806430044 MOTORIZED ON- OFF BUTTERFLY VALVE OF SIZE DN400, PN10 WITH MOTORIZED ACTUATOR AS PER SL NO. 22 OF TABLE-B OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO. ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018	ST	4.00	24.12.2018
041	RWT806430045 MOTORIZED ON- OFF BUTTERFLY VALVE OF SIZE DN400, PN10 WITH MOTORIZED ACTUATOR AS PER SL NO. 19 OF TABLE -C OF ANNEXURE-1 OF TECHNICAL SPECIFICATION NO.	ST	1.00	24.12.2018



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Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
	ROS 6214 REV 00 DATE 25.05.2018 & ROS 4205 REV 02 DATE 25.05.2018			

BIDDERS SHALL CAREFULLY READ THE FOLLOWING ANNEXURES / NOTES AND SHALL QUOTE THEIR BEST COMPETITIVE PRICE.

PLEASE REFER TO - COMMERCIAL DOCUMENTS

1. **ANNEXURE-B FOR STANDARD TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)**
2. **ANNEXURE-C FOR COMMERCIAL TERMS AND CONDITIONS**
3. **ANNEXURE-D PRICE BID FORMAT FOR THE SUPPLY**
4. **ANNEXURE-E SDDR FORMAT**
5. **ANNEXURE-F CEBG FORMAT**
6. **ANNEXURE-G ONLINE SUPPLIER REGISTRATION FORM**
7. **ANNEXURE H TERMS AND CONDITIONS FOR OFFER**
8. **ANNEXURE I PAYMENT MECHANISM**

TECHNICAL ENCLOSURES AS PER FOLLOWINGS:

- 1) **TECHNICAL SPECIFICATION FOR BFV & CHECK VALVES - ROS 6214 REV 00 DATE 25.05.2018**
- 2) **TECHNICAL SPECIFICATION FOR PNEUMATIC FLOW CONTROL & ON/OFF ACTUATOR - ROS 4205 REV 02 DATE 25.05.2018**
- 3) **PRE-QUALIFICATION REQUIREMENT FOR BFV & CHECK VALVES - RWT80643: BFPQ DATE 19.05.2018**
- 5) **VENDOR APPROVAL BY OUR CUSTOMER - SUB VENDOR QUESTIONNAIRE FORMAT**

Important Instruction to Bidders:

1. All the items will be procured from a single vendor only & all the Items will be compared on SET Basis & Order will be placed on a Single vendor who is the lowest (L1) on set basis. Hence please quote for all the complete items including services. Incomplete offers will be rejected.
2. Vendors shall go through the “Qualification Requirement” & furnish Qualification Data sheet duly filled in along with Techno-Commercial offer. Offers received without this requirement will be summarily rejected & such offers will not be processed further.
3. Price bid opening will be considered subject to techno commercial confirmation and acceptance by BHEL, Ranipet & also approval from our customer: **M/s. NTECL VALLUR 3 X 500 MW TPS.**
4. Price Bid opening will be done through e-mode / Reverse Auction method (English method) which will be decided after techno-commercial bid evaluation is completed

➤ TENDER SHALL BE SUBMITTED IN TWO PARTS AS REFERRED IN ANNEXURE-B.

➤ ANY REVISED OFFER(S) SENT BY VENDORS ON THEIR OWN, AFTER THE TENDER OPENING, WILL BE TREATED AS "UNSOLICITED OFFER". SUCH OFFERS WILL NOT BE CONSIDERED AND NECESSARY ACTION AS DEEMED FIT WILL BE TAKEN BY BHEL ON THOSE VENDORS. HENCE COMPETITIVE OFFER TO BE GIVEN IN THE ORIGINAL QUOTE ITSELF.



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IMPORTANT NOTE:

TENDERS ARE INVITED THROUGH ELECTRONIC MODE FROM ELIGIBLE SUPPLIERS IN CASE OF OPEN TENDERS AND FROM SUPPLIERS TO WHOM THE ENQUIRY IS ADDRESSED IN CASE OF LIMITED / SINGLE TENDER.

THE OFFERS SHALL BE POSTED INTO THE SYSTEM BEFORE THE DATE AND TIME SPECIFIED IN THE TENDER.

THE OFFER SHALL BE SENT ON ~~SINGLE PART~~ / TWO PART / ~~THREE PART~~ BASIS AS SPECIFIED IN THE MAIN TENDER DOCUMENT.

BIDS SHALL BE SUBMITTED THROUGH E-PROCUREMENT PORTAL, <http://bhel.abcprocure.com> OF M/S E-PROCUREMENT TECHNOLOGIES LTD - www.abcprocure.com WHO ARE OUR SOLUTION PROVIDER..

01) OFFERERS ARE REQUESTED TO CAREFULLY READ THE FOLLOWING CONDITIONS AND GIVE THEIR SPECIFIC CONFIRMATION OF ACCEPTANCE IN TOTO.

2A) TIME IS THE ESSENCE OF CONTRACT.

2B) IN THE EVENT OF DELAY ON THE CONTRACT DELIVERY, LIQUIDATED DAMAGES (LD) WILL BE LEVIED.

2C) LD WILL BE LEVIED AT THE RATE OF 0.5 % PER WEEK OR PART THEREOF ON THE CONTRACT VALUE.

2D) THE LD CEILING WILL BE 10 %.

2E) LD WILL BE A MANDATORY CONDITION IN THE PURCHASE ORDER.

3) IF NO CONFIRMATION OR COMMENTS ARE INCLUDED IN THE INITIAL OFFER BY THE TENDERER, IN THE EVENT OF PLACEMENT OF ORDER, THE ORDER WILL BE RELEASED WITH THE STANDARD LD CONDITION GIVEN ABOVE.

4) THE CONDITION WILL BE INCLUDED IN THE ORDER WITHOUT ANY FURTHER REFERENCE TO THE OFFERER AND NO CHANGES WILL BE PERMISSIBLE, POST ORDER RELEASE.

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**ANNEXURE –B**  
**GENERAL TERMS & CONDITIONS**  
**(FOR GUIDANCE TO THE SUPPLIERS)**

**A] Submission of Offer**

**a) Invitation for bid**

Tenders are invited through electronic mode from eligible suppliers in case of open tenders and from suppliers to whom the enquiry is addressed in case of Limited / Single Tender.

The offers shall be posted into the system before the date and time specified in the tender.

The offer shall be sent on single part / two part / three part basis as specified in the main tender document.

Bids shall be submitted through e-Procurement portal, <https://bhel.abcprocure.com> of M/s e-Procurement Technologies, Ahmedabad who is our solution provider.

**b) Hardware and Software requirements for participating in e-tender**

Requirement for participating in e-Procurement is as under:

- i) A Computer with internet connectivity (Internet Explorer 9.0 (32-bit Browser only) & above)
- ii) Digital Signature Certificate (Class 3- SHA2-2048 BIT- with both Signing and Encryption component separately).
- iii) JAVA (Version 1.8 Update 45).
- iv) Steps for Hardware and software configuration is detailed at <https://bhel.abcprocure.com/EPROC/> under title “Minimum system requirements and Settings Document for BHEL User and Bidders”.

**c) Instructions for Registered Suppliers**

For all types of tenders (Single / Limited / Open) an automated email alert regarding issue of the Tender will be sent by the e-procurement portal to all Suppliers registered with BHEL, Ranipet for the item/s for which the tender is issued.

In case of open tenders, Registered suppliers with registered DSC will have to login with their user id/password & DSC and search for the Open Tender. To participate in event and to submit bid, a bidder needs to agree the terms and conditions.

Registered suppliers without DSC will have get their profiles approved by mapping DSC after login.

To know the procedure for obtaining Digital Signature Certificate (DSC), suppliers who are not having the DSC are advised to visit our website [www.bhel.com](http://www.bhel.com) → Tender Notifications → Sample Checklist.

**d) Instructions for new suppliers wishing to bid against open tenders**

New, unregistered suppliers wanting to bid against open tender/s will have to first register themselves in <https://bhel.abcprocure.com> as new supplier by clicking the “Register” button.

After entering the Income Tax Permanent Account Number (PAN) details and pressing “Enter”, they have to select the respective BHEL Unit for which they want to participate in the Open Tender and also fill up other relevant Company information as a one-time activity. On successful registration, your profile will be approved by the authorized officer and you can login to portal and can participate in the procurement event.

To participate in a tender, you need to login to the portal. You must be an approved registered user. If you are not a registered user, you can register yourself by clicking upon the “Register” link. You need to have a valid vendor code and password to login to the portal. Enter your Vendor code, password and click on Login button after Login, you need to select your digital signing and encryption certificates certificate. The DSC will be approved by M/s e-Procurement Technologies/ Authorised officer of BHEL.

As required by the tender, the necessary documents have to be filled-in online, in the provided template. Additional documents required are to be scanned and uploaded as .pdf file. Suppliers are advised to take note that the maximum space that is provided for uploading the documents that are to be attached is 300 MB. However the size of an individual document cannot exceed 10 MB. For any clarification on submission of offer on line, attention of the Supplier/s is invited to our document “Bidder Manual for BHEL Bidders” hosted in the home-page of the e-procurement portal. During normal business hours, helpline maintained by the service provider M/s e-Procurement Technologies is available for clarifying any doubts of supplier/s. The helpline numbers are +91-79-40270599/508/560/590/513 and email id is: [Bhel.Support@abcProcure.com](mailto:Bhel.Support@abcProcure.com) . Bidder can also refer to “Bidder Manual for BHEL Bidders” hosted in the home-page of the e-procurement portal <https://bhel.abcprocure.com>.

Typical documents that would be required as part of tender submission would be

- a) **Complete technical Offer** with details, catalogues, as applicable.
- b) **Un-priced bid** (i.e. Bid without the Price) as per given format, if any.
- c) **Filled-in BHEL’s Standard Terms & Conditions** as per Annexure enclosed with the Tender Document,
- d) **Deviation summary** submitted in two parts – giving the summary of technical deviations separately and the commercial deviations separately, if any and
- e) **Supporting documents** to substantiate equivalent material specifications / sections, where quoted for.
- f) Where asked for, **Client list** with their full address including detail of contact person with phone no., fax no. & e-mail ID (if any) to whom the same / similar items are supplied in the past two years. The date of supply may also be indicated, against each client.
- g) Suppliers can also upload their credentials by way of submission of Performance certificate/s issued by their customer/s detailing the quantity supplied and specification along with the un-priced PO copies and proof of supply along with the offer.

**Technical acceptance of offer by BHEL shall be based on the evaluation of offer and the submitted documents.**

- h) **Bidders who are not already registered with BHEL Ranipet** are requested to submit the Supplier Registration Form (SRF) online (<http://supplier.bhel.in/>) for evaluating and registering as an approved vendor. The Supplier Development Cell (SDC) of BHEL, Ranipet would process the SRF for evaluation / registering the Supplier. Don’t send hardcopies of SRF to BHEL-Ranipet, **only** online submission is accepted. This registration process is a separate / parallel activity and do not mix-up with submission offers.

#### **Note**

- (i) The materials offered, shall conform to the specification and scope attached in the tender.
- (ii) In case the offered materials are not conforming to the Enquiry material Specification, such offers would not be considered for evaluation and would be rejected.

Where equivalent specifications are offered, considering such offers will be at the sole discretion of BHEL. Wherever alternative standards / specifications are offered by Bidder, the Bidder shall provide sufficient documentary evidence to ensure equivalence to the designated standards / specifications, failing which the offer would be considered as not technically acceptable and hence shall stand rejected.

(iii) All taxes and duties payable as extra to the quoted price should be specifically stated in offers (as appearing in the online template).

Offer/s from within India shall be submitted along with the applicable HS Number and the applicable Goods & services Tax (GST) for each quoted item, failing which the purchaser will not be liable for payment of such taxes and duties. Our GST No: **33AAACB4146P2ZL**.

(iv) The un-priced bid shall be used to indicate relevant commercial terms such as scope of freight and insurance, applicability of duties and taxes etc. All Commercial terms are to be indicated clearly in the offer.

(vi) No changes shall be entertained once the bid is opened unless otherwise specifically agreed to in writing by BHEL.

(vii) Money values other than for those items appearing in the un-priced bid template shall not be indicated anywhere in the un-priced bid.

(viii) Time required for inspection (at Supplier's works), should be clearly given in terms of numbers of working days.

(x) **Offers sent by FAX / E-mail:** would not be entertained.

(xi) Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection.

**Price Bid** in conformance with the specification and terms as given in the Un-Priced bid document.

**Caution on submission of pricebids thru EPS:**

***The suppliers are severely cautioned to note that the price bid document accepts the price in figures only. It does not allow the supplier to write the value by words. Therefore all care shall be exercised by the supplier while filling in the figures. Once the price bid is opened no option is available for the supplier to retract the offer under any grounds. If a supplier, for any reason whatsoever approaches BHEL with a request for change in the price, it would be treated as going back on the offer submitted. In such cases, action would be initiated by BHEL for suspending further business dealings with such suppliers as per policy of BHEL which prevails at that point of time.***

**Foreign / Overseas suppliers are hereby informed that offers with differential currencies are not permitted for a given tender document.**

**Note**

(i) The price break-up should be in line with technical specification / scope of the tender. (Cost of material, packing charges, forwarding charges, freight and insurance charges shall be shown appropriately, as applicable).

(ii) Unless otherwise specified as a part of the tender condition, No Price Variation Clause will be entertained and No advance payment will be made by BHEL.

- (iii) In case, there is a discrepancy in the term quoted in techno-commercial bid and price bid, the term as per the techno-commercial bid (Part I) shall hold good and the commercial term quoted in the Price Bid (Part II) shall not be considered.
- (iv) In their own interest, all Tenderers are advised to double check their prices, applicable duties and taxes.
- (v) The quotation should be valid at least for a period of 90 days from the tender opening date.
- (vi) Indian bidders should submit the prices in Indian Rupees only.
- (vii) Foreign bidders may submit their bid in foreign currency. The currency for quoting shall be selected from the drop-down menu provided.
- (x) Indian Suppliers shall quote on FOR Destination basis only. Destination is BHEL, Ranipet Stores or BHEL Project Site as specified in the tender requirement. Foreign Suppliers shall quote on CFR Chennai Seaport Delivery and Insurance will be in BHEL's scope. No other delivery terms shall be acceptable. Shipment shall be arranged by the Seller on *Liner in / Liner out basis*. As per Government of India guidelines, BHEL Ranipet being a Government of India Undertaking the Bill of Lading shall be made with the Shipper as "Government of India". This shall be specifically confirmed by the Bidder.
- (xi) Where the cargo is containerized, Container washing charges, stuffing charges and / or any other such charges would be to the account of the supplier, where the containers are to be stuffed at the works of the supplier.

#### **B] Opening of Offers**

**a) Tenders can be submitted up to 1400 Hours on tender opening due date. Part I will be opened on the same day at 1430 Hours. Results of the tender opening will be available for viewing for upto 7 days from the date of opening.**

**b) Requests by Bidders for extension of due date will not be entertained by BHEL.**

c) Price Bid opening will be done through e-mode / Reverse Auction method ( English method) which will be decided after techno-commercial bid evaluation is completed. All tenderers would have to specifically give their acceptance for this in their bid/s.

#### **Note**

- (i) Bids including all enclosures and supporting documents like catalogues, pamphlets, etc., shall be provided in ENGLISH language only.
- (ii) In exceptional circumstances, at its option, BHEL may consider extending the due date/s for the tender openings for reasons such as (but not limited to) paucity of offers etc. However, sufficient notice would be given by BHEL for such extension.
- (iii) Deviations shall be summarized and provided in a "Deviation Statement", listing the points and the deviation against each point.
- (iv) BHEL reserves the right to increase or decrease the tendered quantity and to order on more than one vendor at the lowest acceptable price to BHEL. In ordering on more than one source, the ratio of quantity split will be as specified in the tender terms.

If not explicitly specified, BHEL reserves the right to split the quantity of the enquiry as follows: 70% quantity being ordered on the original lowest bidder (L1) and balance 30% on the next higher bidder/s excluding H1, who accepts the L1 price. However, the final decision to split the order rests with BHEL only.

In the event that the other than L1 suppliers do not accept the L1 price, then the balance will be reverted to the original L1 and the original L1 shall be bound to accept the balance of the enquiry quantity kept reserved for order splitting. This decision would be given by BHEL within 60 days of the price bid opening.

Notwithstanding the quantum of split that may be indicated in the main body of the enquiry, bidders are advised to note that the splitting of the orders will be decided by BHEL after the evaluation of the techno-commercial and price bids.

(v) Offers for part quantities on item level basis are not acceptable to BHEL. While tenderers can quote for some or all the tendered items, no supplier shall quote for partial quantity of any given enquiry item. Such partial offer would not be considered in the enquiry for that item. Suppliers are to note that the evaluation unless otherwise specified will be on item level and not for the tendered items as a whole.

### **C] Evaluation of Offers**

a) The price bids including the impact price (if any) of the technically acceptable offers alone shall be opened.

b) Offers with pre-conditions (like conditional discounts) for price are liable to be not considered / rejected. For evaluation such conditions would be removed and only the base offer would be considered for evaluation and comparison.

d) In the event of any change in scope / quantity arising out of the discussions, offerers would be given a chance to submit their revised offer / Impact bids. The option for the revised offer / impact offer will be triggered by BHEL. The Supplier then will have the facility to feed-in the revised price / impact price as per the provision given by BHEL. The impact price can be positive or negative (or nil). The impact price option shall contain only the price addition / deletion for such change in the scope / quantities, over and above the original scope and price quoted. The original price quoted would remain unchanged. The total price would then be computed by the arithmetic addition of the original price and the impact price. Where BHEL gives the option of submitting the revised offer, the impact would be computed as the arithmetic difference of the revised price and the original price.

e) For evaluating the overseas offers, CFR Chennai Sea Port price quoted will be taken into account. The cost to BHEL will be arrived at by loading the applicable customs duty project wise, insurance charges, inland transportation charges to BHEL stores and LC charges etc.,

f) Deleted.

g) BHEL reserves the right to reject without assigning any reasons / load any offer with factors other than already specified for such offers having deviations to BHEL Specifications, Standard Terms & Conditions at its discretion. The decision of BHEL in this regard shall be final.

h) BHEL reserves the right to reject an offer due to unsatisfactory performance during tender finalisation / execution of a contract at any of BHEL projects / units in the past or if unsatisfactory performance report is received from the party/s referenced by the supplier at any time during tender finalisation.

i) BHEL reserves the right to operate Purchase / Price preference to Government of India Undertakings, which shall be given as per the guidelines of Government of India given from time to time and / or relax the Terms and Conditions of the tender.

j) For the purpose of comparing prices, tender prices shall be converted to Indian rupees and the conversion shall be made by using the TT Selling rate of State Bank of India (SBI) prevailing on the date of opening of

Techno-Commercial / Unpriced bids. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken. This exchange rate will be followed till placement of order. Tenderers may please note that even if an impact price is taken as in (d) for purpose of price evaluation and arriving at the rank; the exchange rate will be taken as explained above.

k) Unless otherwise specified, evaluation will be on individual line item basis only and ordering will be on respective L1 vendors.

l) BHEL reserves the right to conduct negotiations on the “Price” and “Other Commercial Terms and Conditions” with the lowest ranked offerer at any time after the bid opening but before the release of the Purchase Order and If so required by BHEL, Supplier may have to share their costing sheet with BHEL.

m) Bidders are required to confirm in writing in their techno-commercial document that other than themselves (the bidder) none of its group companies, concerns or affiliates etc., are participating in the tender either directly or indirectly or through any other agency under the same proprietor / common partner(s)/ common Directors. If during the evaluation of the bids it is found that the bidder has submitted the offer in violation of this condition then all the offers received from the group companies would stand rejected. If such relationship is found at a later date where the Purchase Order has been issued, then BHEL would cancel the Purchase Order and initiate suitable action/s under the contract/s including but not limited to invoking the Risk Purchase clause of the order and other applicable legal provisions / guidelines of BHEL including guidelines on suspension of business dealings. (Please see clause L sub-clause c).

#### **D] Execution of the Order**

a) BHEL will have the option to pre-inspect the materials at Supplier's works by BHEL's own inspector or by third party agency appointed by BHEL or BHEL's end customer/s. The mere act of the pre-dispatch inspection (PDI) does not absolve the Supplier from giving the specifications as agreed upon in the Purchase Order. In the case of inspection being carried out by a third party inspector (TPI) as per the extant practice, the TPI would forward the Inspection Report (IR) along with Test Certificates and other related documents to the Quality Assurance (QA) Department of BHEL. The QA department after scrutinising the report/s submitted by the TPI would issue the Material Dispatch Clearance Certificate (MDCC). Suppliers are hereby informed that materials should be dispatched only after getting the MDCC, failing which the materials may be rejected on receipt at BHEL Stores.

b) In the case of overseas suppliers Inspection call for carrying out the inspection shall be given 30 days before the scheduled contract delivery date. The Inspection date/s given by the Supplier shall be on firm basis. For local Suppliers the Notice period of Inspection shall be 10 working days.

c) Deviations, if any pointed out by the visiting Inspection team of BHEL shall be corrected and the items as per specification shall be dispatched on or before the contract delivery date after getting the MDCC.

d) The final inspection for acceptance will, however be carried out at BHEL's works at Ranipet.

**e) The contract delivery date is the date of receipt at BHEL Stores for suppliers in India, applicable in the case of FOR Destination Contracts.**

**For ex-works contracts or FOR dispatching station indigenous contracts, the date of the Lorry way bill issued by the authorised transport carriers of BHEL / Railway Receipt / Courier Way bill / Airway bill or any such dispatch documents of carriage approved by BHEL would be considered as the Contract Delivery Date. In the case of CFR contracts with overseas suppliers, the B/L date shall be taken as the Contract Delivery Date**

f) Travel & other local stay cost for the Inspectors sent by BHEL will be to BHEL account, but other Inspection Charges, if any shall be to the account of the Seller only.

g) The supplier shall arrange for packing suitably in all respects for normal transport by sea / rail / road and Materials shall be suitably protected against effect of tropical salt laden atmosphere in the event of shipment being delayed at ports / store yards and as per BHEL TDC.

h) Foreign suppliers shall dispatch on CFR agreed Sea-Port basis, according to the contract conditions. Indian suppliers shall dispatch on free delivery (door-delivery) at BHEL stores basis only. Unloading the materials at BHEL Stores would be to the account of BHEL only.

i) In the event of any short supply, it shall be the responsibility of the supplier to deliver such short supplied/missing items on Free-of-Cost basis at BHEL stores, including customs clearances at Indian Ports in the case of foreign suppliers.

k) Terms of payment:

k.1) For Indigenous Suppliers: Unless otherwise agreed to by BHEL, the standard payment terms of BHEL shall be: For non-MSE suppliers 100% payment made directly through EFT within 90 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 90 days from the date of acknowledgement of receipt of materials at destination specified. If any supplier asks for payment terms other than the above specified, then suitable loading on cost will be considered. **Loading of any deviation in the payment terms w.r.t tender terms will be “Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation sought by bidders.**

k.2) For MSE vendors (under Micro & Small category alone) 100% payment will be made within 45 days from the date of receipt and acceptance of materials at BHEL Stores, Ranipet or 45 days from the date of acknowledgement of receipt of materials at destination specified.

l) NOTE:

Where the destination specified is other than BHEL Stores Ranipet, for claiming payment, Supplier has to submit proof of receipt of the materials at the destination by furnishing a copy of the acknowledged despatch document (LR/RR/Courier receipt etc.) .

If the Bidder is bidding for the first time and wants to be considered as an MSE then, the Bidder shall submit document evidencing that they are an MSE along with a certificate from a Chartered Accountant certifying the status of their Unit / Works clearly specifying the address of the works which is to be considered as MSE and send the same to BHEL, Ranipet either before the tender opening date or upload it as a part of the tender document in the e-procurement portal. Where the document is submitted electronically a hard copy shall invariably be sent within a reasonable period (not exceeding 30 days) from the bid opening date for the purpose of BHEL's records. If the hard copy is not received within this specified time, then the supplier would be treated as a non-MSE. BHEL will not be responsible for any postal / courier / delivery delays.

For approved vendors the status as on the date of the bid opening as available with BHEL Ranipet's records shall be used for reckoning the status of the Bidder as an MSE or otherwise.

Offer/s received without these documents will be treated as non-MSE and order finalization will be done based on this premise. Documents submitted after Bid-opening will not be considered in this tender. This provision for MSE will apply subject to the condition that the participating MSE meets the tender requirements.

For approved suppliers, in case of any change in the MSE status, it shall be the responsibility of the Bidder to notify the change as a part of the Bid document. If at a later date it comes to the knowledge of BHEL, Ranipet that the change in the status has not been intimated by the Bidder and the order is obtained under the premise of an MSE then BHEL would cancel the pending order against this tender and take necessary steps for suspension of the business dealing with the Bidder as per the procurement policy of BHEL. Similarly if a supplier claims MSE status after the Part I bid opening, then the same would not be considered in the tender.

In case after the bid opening it is seen that no MSE has become L1, then depending on the nature of the item, if it is not possible to split the tendered items / quantities on account of reasons like customer contract requirements of supplying one make for a given project or technical reasons like the tendered item being a system etc. then BHEL would not counter offer the L1 prices even though there may be MSE bidders within the +15% band of L1.

#### Other concessions for MSEs / Reserved sectors

In addition to the concessions specified above, MSE suppliers will be eligible for such other concessions as per the MSME Act 2006 and any other benefits / concessions that may be announced by the Government of India from time to time.. However, such concessions as applicable at the time of tender opening alone will be applicable. Any concessions advised after tender opening will not be considered for the current tender.

Items that are reserved for MSE and for any other items for which reservations for Indian manufacturers are notified by the Govt. Of India, such concessions as prevailing on the date of tender opening shall apply as a part of this tender conditions.

ii) Foreign Suppliers “100% thru’ irrevocable & unconfirmed LC at sight within 3 weeks from the PO date through any one of our Bankers listed elsewhere in the tender conditions for 100% value (less Agency Commission, if any ) valid up to the PO delivery period and 15 days thereafter for negotiation. All bank charges in India to BHEL's account and all other charges outside India to Supplier's account. **BHEL would load the price of foreign suppliers in order to bring them on common platform as per Indigenous Suppliers on the account of differential payment terms to Indigenous Suppliers. Loading of payment terms will be “Base rate of State Bank of India (SBI) (as applicable on the date of bid opening: Techno-commercial bid opening in case of two part bids) + 6%, will be considered for loading for the periods of relaxation compared to indigenous suppliers i.e. 90 days.**

m) Any incidence of tax like Income tax, Goods & Services Tax (GST) and Withholding any other similar tax / duties /levies imposed by the Government of India, or the State Government, where the BHEL Unit is located, deductible at Source, during the tenure of the Order shall be deducted by BHEL and necessary certification of the deduction (Tax deduction at Source) would be given. This is subject to the supplier fulfilling the necessary documentation as specified by the Government of India. (e.g. Tax Residency Certificate, PAN Number etc.)

n) The Guarantee period shall start from the “Date of receipt and acceptance of the materials at BHEL Stores.”

***o) Where any bidder gives extended credit period over and above that offered by BHEL, then all other Non-MSE bidders and foreign bidders would have to match the extended period of payment terms. This information would be given to such bidders after opening of the techno-commercial bids; but before opening the price bids. However bidders would not be allowed to change their price bid for purpose of confirming the extended credit period. In the event such bidder/s do not accept the extended credit period***

*for payment, then their offer would be loaded to the extent of the differential between their offered payment terms and the revised payment terms offered by BHEL as explained above.*

#### **E] Liquidated Damages Clause:**

BHEL will levy penalty as Liquidated Damages (LD), for delay in delivery. The damages shall be at the rate of ½% per week or part thereof subject to a maximum of 10% PLUS applicable Goods & Services Tax (GST). The contract delivery date for purpose of L.D is the date of receipt at BHEL Stores for suppliers in India for F.O.R. Destination Contract and the date of dispatch clearance given by BHEL for overseas suppliers. For ex-works or F.O.R dispatching station contracts, the date of the dispatch document will be reckoned as the date of delivery for computing the LD. Supplier shall deduct the applicable LD from the first payment when raising the claim for the same. The applicable LD if any would be communicated by BHEL along with the dispatch clearance. It is taken by BHEL that Foreign Suppliers have confirmed their acceptance to BHEL for opening the LC for value which is the value of the order reduced by the applicable LD. The LD would apply on the undelivered portion only. In case of reasons attributable to BHEL for the delay in delivery (for e.g. delay in arranging the pre-inspection) then the delivery time would be reset to the extent of the time delay attributable to BHEL, with waiver of the LD. Delivery being the essence of BHEL's contract requirements, Unless otherwise specified the LD would apply on the undelivered portion of the contracted items. **In the event that a Supplier does not accept the LD condition above, the offer would be loaded to the extent of the shortfall with respect to upper limit specified above.**

#### **F) Miscellaneous**

##### **i) Role of Principals and Agents:**

BHEL will deal directly with indigenous manufacturers only.

BHEL strongly discourages the engagement of Agents in India by foreign principals, to deal with BHEL, in BHEL's tenders.

BHEL will not enter into any correspondence with an Indian Agent.

The Indian Agent will not be extended the privilege given to the principals, such as that of attending the tender openings, attending technical discussions, commercial discussions or price negotiations and such like.

In case, in spite of the above, a foreign principal insists on engaging an Indian Agent, It is made clear by BHEL that:

It is the sole responsibility of the foreign principal to ensure the Agent does not represent any other foreign principal in a given tender.

An undertaking to this effect shall be given by the foreign principal that his / her Agent does not represent any other foreign principal in the tender. This document shall form a part of the techno-commercial offer.

A Principal shall authorise only one Agent to quote against each BHEL's tender. In the event a Principal authorises more than one agent to quote against a BHEL's tender, then all such offers will be rejected by BHEL in that tender. Principals are also advised to include BHEL's tender Number / Reference in their authorisation issued to the Agent.

If at any stage of the tender, BHEL finds that an Indian Agent has represented more than one foreign principal, all such offers of and all the foreign principals would be disqualified summarily in the tender inquiry.

BHEL will only give an intimation of notice of the disqualification. No correspondence would be entertained by BHEL, on their decision. Such decision of BHEL shall be irrevocable, firm and final and shall be binding on the tenderer.

BHEL, due to business reasons would ban, would have banned Indian agents from dealing with BHEL.

Any foreign principal who engages such a banned agent, or an employee of the banned agency, or any other person connected with the banned agency, at any time during the tender proceedings, would be disqualified from the tender proceedings. The decision of BHEL in this regard shall be final and be binding on the OEM.

Hence in their own interests, prospective tenderers may check with BHEL, the status of their proposed agent vis-à-vis BHEL.

In view of the requirement of BHEL, it is strongly suggested that in their own interest, foreign principals may desist from engaging any Indian agent and deal with BHEL directly and it is stressed that any Main producer proposing to deal with BHEL by engaging and through an Indian Agent does so at their own risk.

BHEL shall in no way be responsible for any consequences that may arise to the foreign principal on account of the antecedents / actions of their Indian Agent.

#### **In the event of the foreign principal engaging an Indian Agent:**

**a) The Supplier shall furnish an authenticated copy of the Agency Agreement with his agent detailing the precise relationship between them and their mutual interest in the business along with techno-commercial bid.**

b) The Supplier shall furnish original authorization letter for the Indian Agent. The letter shall contain name, contact person, complete postal address including phone, fax and e-mail ID. It shall also spell out the type of services to be rendered by Indian Agent.

c) Indian Agent & Agency commission: An Indian Agent can represent only one Foreign Manufacturer against a particular Tender. The CFR price quoted by the foreign bidder shall include the agency commission. However, the agency commission component payable to their Indian Agents shall be shown separately in the Offer, either as a lump-sum or as a percentage of the quoted price. This will be paid by BHEL in Indian Rupees, on satisfactory receipt & acceptance of the materials. For calculation of Rupee equivalent of Agency Commission, exchange rate as prevailing on the date of Purchase Order will be taken and

d) For all discussions, technical clarification and negotiations etc. only the principal would be authorized for interaction with BHEL. The Agent shall not be a party to the discussions / negotiations and would not be normally allowed to participate.

#### **ii) Terms & Conditions of Letter of Credit (L/C) for overseas suppliers (indicated for acceptance).**

a) Unconfirmed irrevocable Letter of Credit at Sight only will be opened by BHEL. Confirmation of L/C is not preferred by BHEL. Also L.C will be opened in Lots in line with the staggered delivery.

b) All Bank charges out side India are to the Supplier's account and within India to BHEL's account.

c) In case of L/C extension caused by delays attributable to the Supplier, the L/C extension / commitment charges are to be borne by the Supplier.

#### **iii) Other terms & conditions for letter of credit: - Documents for negotiation**

- a) Signed Commercial invoice in quadruplicate, for a value not exceeding the draft amount, quoting the import Licence No and certifying goods evidencing shipment of the merchandise are as per Applicant's Purchase Order. The amount of invoice after deducting Indian Agent's commission, if any, should not exceed the Credit amount. (The Indian agent's commission, if any, is payable in India in Indian rupees only.)
- b) Certificate of Country of Origin, from the country of manufacture, issued by the Chamber of Commerce.
- c) One set of Original and two sets of Non-negotiable copies of 'signed', 'unmarked', 'clean on board' Ocean Bill of Lading, showing Shipper as "Government of India" Account M/s. Bharat Heavy Electrical Ltd, Unit: BHEL, Ranipet as consignee (The opening bank should not be notified as consignee), marked freight payable / prepaid at destination.
- d) Packing list in 4 copies in English, indicating Size wise Number of bundles / pieces shipped and weight.
- e) Certified copy of the fax / e-mail sent by the beneficiary to the applicant giving the following particulars of shipment, as the insurance is to be arranged by the Applicant in India: (a) Purchase Order Number & date; (b) Bill of Lading Number & date (c) Name of vessel; (d) Port of Loading; (e) Number of bundles / pieces and weight; (f) Invoice Number, date and value (g) Purchase Order item number's despatched. The cable / fax is to be sent within 2 working days of shipment.
- f) Beneficiary's certificate showing the relevant airmail / courier reference no. and date that the following clauses have been complied with:
- 1] Beneficiary to forward by Registered Airmail / Courier one complete set of original documents and one set of non-negotiable documents within 3 working days of obtaining shipping documents to Regional Manager (ROD), Bharat Heavy Electricals Ltd, 6th Floor, EVR Periyar Bldg. No 690 (Old 474), Anna Salai, Nandanam, Chennai-600035. India. (Phone: +91-24330931, 24330253; e-mail: pbpwar@bhel.in)
  - 2] Beneficiary to courier at his cost 3 copies of complete set of non-negotiable documents to the Officer who released the Purchase Order.
  - 3] Declaration by the Supplier certifying that the contents in each case are not less than those entered in the invoices / packing list and that the invoicing for the supplies effected is strictly in accordance with agreed rates as stipulated in the Purchase Order.
  - 4] Declaration to the effect that all other documents as per purchase order has been couriered to the Purchase order releasing authority
  - 5) The carrying steamer should be seaworthy, less than 25 years of age and approved by Lloyds / Classification Societies / General Insurance Corporation of India from time to time and
  - 6) Copy of Dispatch Clearance / Instruction issued by BHEL.

**iv) Documents to be sent directly to the Purchaser prior to shipment**

- a) Manufacturer's Original Internal Inspection / Test certificate in triplicate.
- b) Manufacturer's Original Guarantee certificate as per Purchase Order. The material shall be guaranteed for a period of 12 months from the date of acceptance of the materials at BHEL stores or 18 months from the date of dispatch whichever is earlier. The acceptance would be evidenced by the Stores Receipt Voucher (SRV) which will be raised by BHEL.
- c) Inspection / Test Certificate issued by BHEL / Inspection agency specified in the Purchase Order. In the event that Inspection prior to dispatch is not carried out by the Engineers of BHEL, the Inspection certificate of the third party so authorized by BHEL and

d) Any other documentation as specified in the Purchase Order.

**v) Conditions for transportation:**

a) All shipping documents shall show the Purchase Order Number & Date, Import Licence Number & Date, and Letter of Credit Number & Date.

b) Transshipment is to be avoided.

c) Loading on deck is not permitted. The transport document must not contain a provision that goods may be carried on deck.

d) A transport document which is produced or appearing to have been produced by reprographic, automated or computerized systems or as carbon copy will be accepted as an original document provided that it is marked as original and is ink-signed.

e) The transport document must contain all the conditions of carriage on the original document.

f) The transport document must not indicate the place of destination as being different from the port of discharge.

g) The transport document must not contain the indication 'intended' or similar qualification in relation to the vessel or other means of transport or port of loading or port of discharge.

h) The transport document must be issued by the carrier or his agent and not by any freight forwarder.

i) Transport documents bearing reference by stamp or otherwise, to costs additional to the freight charges are not acceptable.

j) The Bills of Exchange must be dated and presentation of documents for negotiation must not be later than 15 days after the date of shipment and in any case not later than the expiry date of the Credit.

l) Indian suppliers shall dispatch the materials on freight prepaid and on door-delivery basis (FOR Destination – Destination: BHEL Stores) and

m) In the event there is a delay by the Supplier in negotiating / submitting the document, any demurrage / wharfage arising out of the same shall be to the account of the Supplier and shall be deducted from the final payment. Also, in such cases, the Supplier shall authorize the Steamer / Shipping agent / transporter to freely release the consignment to BHEL by providing a “Surrender Bill of Lading”. Over-seas Suppliers have to give a No-Objection Certificate to BHEL, authorizing BHEL to get the Delivery Order from the Steamer Agent without producing the Original Bill of Lading. This is required to ensure avoidance of incidence of demurrage at Chennai Sea-port that may arise in case of delayed presentation of documents by the Seller.

**G) Reverse auction (RA) / on-line bidding on internet:**

1. “BHEL reserves the right to go for Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders shall give their acceptance with their offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of the bids, in case BHEL decides to go for RA.”

2. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit ‘Process compliance form’ (to the designated service provider) as well as ‘Online sealed bid’ in the Reverse Auction. Non-submission of ‘Process compliance form’ or ‘Online sealed bid’ by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant

*guidelines for “Suspension of Business Dealings with Suppliers/ Contractors (as available on [www.bhel.com](http://www.bhel.com)).”*

3. The philosophy followed for reverse auction shall be English Reverse (No ties).
4. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate.
5. BHEL will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on internet.
6. In case of reverse auction, BHEL will inform the bidders the details of Service Provider to enable them to contact & get trained.
7. Business rules like event date, time, bid decrement, extension etc. also will be communicated through service provider for compliance.
8. Bidders have to fax the Compliance form (annexure IV) before start of Reverse auction. Without this, the bidder will not be eligible to participate in the event.
9. Reverse auction will be conducted on scheduled date & time.

**Note: Decision to go for RA or not will be on case to case basis.**

10. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
11. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, to the Service provider within two working days of Auction without fail.
12. Bidders are 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. The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with their offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, would also be opened after the RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. It is considered that the bidder having submitted their offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rate/s.
16. If it is found that L1 bidder has quoted higher in the online sealed bid in comparison to the envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on [www.bhel.com](http://www.bhel.com)).”

17. The calculation sheet e.g. excel sheet (which will help to arrive at 'Total Cost to BHEL') will be communicated to respective bidders of RA by BHEL. 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, Goods & Services Tax (GST) 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.]

18. This calculation sheet will be finalized based on the evaluation criteria specified in the NIT.

19. Suppliers are required to submit their best price bid in a separate sealed cover along with techno-commercial bid. After evaluation of Techno-Commercial Bids:

a) In case BHEL decides not to conduct RA, the envelope sealed price bids of all techno-commercially qualified bidders, along with price impact, if any, would be opened and processed as per extant the internal Purchase/ Works Policy as applicable to BHEL.

b) In case BHEL decides to conduct RA, business rules of RA will be sent to service provider.(See Annexure for Model General Business Rules of RA.)

20. Generally the start price for the RA would be the lowest of

a) Lowest online sealed bid and

b) Internal Estimate of BHEL

*Note: Wherever more than one lowest online sealed bids are identical and lower than the estimate, the start price, would be that price arrived by reducing the lowest online sealed bid by maximum of one decrement.*

21. Reverse auction process would deemed to have started upon receipt of 'Online Sealed Bids' from the bidders within the prescribed time frame as per Business Rules.

22. After receipt of 'online sealed bids', the start price & bid decrement will be decided by BHEL and the same would be communicated to the service provider, to start the bidding process.

23. Only those bidders who have submitted the 'online sealed bid' within the scheduled time would be eligible to participate further in RA process. However, the H1 bidder (whose quote is highest in online sealed bid) will not be allowed to participate in further RA process provided minimum three bidders are left after removal of H1 bidder. In case of tie for H1 bid (identical online sealed bids), 15 minutes additional time would be provided and all the participating bidders would be informed by mail/ message on bidding screen to enable bidders submit revised online sealed bids so as to break the tie.

24. If the lowest online sealed bid is the starting price, then the lowest bidder in online sealed bid shall be shown as current L1 automatically by the system. System would have the provision to indicate this bid as current L1 for further bidding.

25. If the start price is lower than the lowest online sealed bid, on acceptance of such start price by any bidder, this bid would be indicated as current L1 for further bidding.

26. In case of no further bidding, RA will be deemed to have been successful with current L1 bidder.

27. All bidders who had given online sealed bid would be able to see their rank and L1 price and their ranking L1, L2 etc. would be based on their last quoted price irrespective of quote received in RA or online sealed bid.

28. RA shall be treated as failed in the following scenarios:

- a) In cases where the start price is (a) estimate or (b) one decrement (maximum) lower than the lowest of the online sealed bids and no bidder accepts the start price.
- b) In cases where the number of online sealed bids are less than four before removal of highest bidder.
- c) In cases of tie among H1 bidders, even after extension of submission of online sealed bids once by 15 minutes.
- d) Wherever, the evaluation is done for individual line items, RA shall be treated as failed only for those line item(s) for which any of the above a), b) or c) satisfies.

29. In cases of failure of RA, sealed envelope price bids (of item(s) for which RA has failed) of all the techno-commercially qualified bidders would be opened and the tender would be processed accordingly. However, the envelope sealed bid(s) of techno-commercially acceptable bidder(s) who had agreed to participate in the RA and had failed to submit the online sealed bid would not be opened.

30. After declaring L1 upon completion of RA, the envelope sealed price bid of L1 bidder would also be opened for placement of order on lower of the two bids (RA closing price & envelope sealed price) and the offers would be processed as per extant their internal Purchase/ Works policy provisions of BHEL. Action as per NIT terms would be taken if online sealed bid is higher than the envelope sealed bid.

31. Relative position of bidders (for usage in cases of predefined splitting the quantities) would also include bidders who have given 'online sealed bids' but have not given further bids in auction. In case of splitting requirement, H1 bidder may be considered for counter offer if the pre-stated (NIT) numbers of suppliers do not accept the counter offer. However, principle of splitting to N-1 bidder would be maintained.

32. In case H1 bidder happen to be MSE and was removed from further bidding but is within L1 + 15% band, then this bid would be considered and to be processed in line with 'Public Procurement Policy for Micro & Small Enterprises (MSEs) order, 2012'.

33. For providing preference to domestically manufactured Electronic Products, in accordance with Department of Electronics and Information Technology (DeitY) Gazette Notification No. 33(3)/2013-IPHW dated 23.12.2013 and its related notifications issued from time to time, H1 bidder removed from further bidding would be considered for counter-offer to meet domestic bidder requirement for the item(s) under procurement.

34. In case BHEL decides not to go for Reverse Auction for the tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL would be opened as per BHEL's standard practice.

35. In case of enquiry through e-Procurement, the sealed electronic price bid (e-bid) would be treated as sealed envelope price bid.

**Note: In order to bring more transparency and to address any queries of Bidders on Reverse Auction, an abridged version of BHEL's "Common Guidelines for conducting Reverse Auction (RA)" has been hosted in BHEL's web site [www.bhel.com](http://www.bhel.com) under the links "Supplier Registration Page" and "Tender Notification". All Bidders are requested to visit the link and familiarize themselves with BHEL's RA procedures and guidelines before submission of their bid/s. Submission of Bid shall mean that the Bidder has read and understood BHEL's RA procedures and the bid is in agreement with the same.**

## **H] Force Majeure**

If at any time during the currency of this contract, the performance in whole or in part, by either party of any obligations under this contract shall be prevented or delayed by reason, of any war, hostilities, acts of the public enemy, civil commotion, sabotage, fires, explosions, epidemics, quarantine, restrictions or acts of GOD (hereinafter referred to as events), then provided notice of happening of any such events is given by either party to other within ten days from the date of occurrence thereof, neither party shall reason of such events be entitled to terminate this contract nor shall either party have any such non performance and delay is resumed as soon as practicable after such events has come to an end or ceased to exist. If the performance in whole or part of any obligation under this contract is prevented or delayed by reason or any such event claims for extension of time shall be granted for period considered reasonable by the purchaser subject to prompt notification by the seller to the purchaser of the particulars of the events and supply to the purchaser if required of any supporting evidence. Any waiver of time in respect of partial installment shall not be deemed to be a waiver of time in respect of remaining deliveries.

## **I] Cancellation of Order:**

In the event of non-performance of the contract by the Supplier, BHEL reserves the right to cancel the order with issue of a written notice. BHEL would provide a curing period of 30 days, for the Supplier to rectify the situation. If the Supplier fails to rectify the reason/s that led to the issue of cancellation notice by BHEL, then the cancellation order would be issued automatically by BHEL, without further recourse to the Seller. BHEL will not pay any cancellation charges or any other charges / damages to the Supplier, arising out such cancellation. In the event of the non-performance of the supply contract, by the Supplier, the rights of BHEL include, in addition to cancelling the order, to take alternate purchase action at the cost and risk of the supplier. The additional expenditure to be incurred by BHEL in such alternate purchase would be to the account of the supplier. (Risk Purchase). This remedy would be in addition to the invoking of the CEBG on grounds of failure of the Supplier in executing the Contract and any other legal remedies." BHEL reserves the right to initiate the alternate purchase action at the cost and risk of the erring supplier by issue of a simple notice of intention for the alternate purchase action duly sent by any electronic means and / or by a letter. The cancellation of the order would not be a pre-condition for initiation of the alternate purchase action.

## **J] Contract Execution Bank Guarantee:**

To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG). The format of the CEBG is a part of this enquiry. The format may be downloaded and necessary stamping may be obtained from the Banker towards submission of the CEBG. The indigenous suppliers have to provide the CEBG from any one of the Nationalized Banks, listed in the annexure to these terms. Overseas suppliers can submit the CEBG from any of the reputed International / National Bankers. However the CEBG is to be confirmed by any of the Bankers listed by us. In the event of failure by the Supplier to execute the contract either fully or partially, BHEL would encash the entire CEBG. The CEBG shall be valid for the period covering the agreed delivery date of the order with a further claim period of 3 months on the last specified delivery date. In the event of the failure of delivery BHEL would proceed with encashing the CEBG without reference to the Supplier. In the event of BHEL granting extension of the delivery dates, then the CEBG validity shall also be got extended by the Supplier to the extent of the extended delivery times together with the claim period as specified elsewhere. **The CEBG shall be for a value of 2% of the Purchase order.**

**Suppliers who are all already registered with BHEL and having a vendor performance rating of A or A+ grade would be exempted from submission of CEBG.**

#### **Performance Bank Guarantee**

Where ever so required, the Supplier shall arrange to provide a Performance bank guarantee (PBG). The indigenous suppliers have to provide the PBG from any one of the Nationalized Banks, listed in the tender terms. Overseas suppliers can submit the PBG from any of the reputed International / National Bankers. However the PBG shall be confirmed by any of the Bankers listed by us. The PBG shall guarantee the performance of the equipment / materials / items supplied and shall cover the guarantee period. The PBG shall have a claim period of 3 months in addition to the guarantee period. In the event of failure of the supplies made within the guarantee period, BHEL would encash the entire PBG. **The PBG shall be for a value of 10% of the Purchase order.**

**The supplier/s have to get the PBG format (pre-printed) from BHEL and get the same stamped by the Banker. Change of PBG terms either by the supplier's Banker or by the supplier, after servicing of the order is not acceptable. Similarly PBG prepared by the supplier (typed by them) will also not be acceptable to BHEL. The pre-printed form issued by BHEL shall be used for making the PBG.**

#### **K] Post-order submission of documents for approval**

In the event of the release of Letter of Intent (LoI) / Purchase order/s (PO) against this tender, Bidders have to submit the applicable documents as called for in the tender / LoI / PO/s, such as drawings, data sheets, design calculations etc. These documents for approval have to be submitted within the agreed timelines between BHEL and Bidder. Normally the time period for submission for approval is 15 days from the date of receipt of the LoI / PO by the supplier. The actual time period within which the documents have to be submitted for approval would be specified in the LoI / PO.

Such documents would be subjected to evaluation and approval by BHEL and / or by BHEL's customer / Consultant / Customer's Consultant. Bidders have to give their specific acceptance for this.

After approval of such documents and after getting clearance from BHEL, only the items ordered can be taken up for manufacture.

Any changes required by BHEL / Customer etc. in the documents submitted for approval shall be incorporated by the Bidder and no extra cost would be payable by BHEL for such changes.

In the event that the Bidder does not carry out the required corrections, then the LoI / PO would be liable for cancellation by BHEL and BHEL would resort to alternate purchase action at the risk and cost of the Bidder under the Risk Purchase Condition of the Purchase Order.

*Note: After receiving the LoI / PO, supplier shall also forward the acknowledgement / acceptance of the LoI / PO by signing and returning the second copy of the LoI / PO as the token of acceptance.*

#### **L] Others**

a) In case of any contradiction in the terms and conditions given here and elsewhere in the other documents of the tender, it shall be the responsibility of the tenderer to get it clarified from BHEL. The officer authorized to provide such clarifications is the tender issuing officer.

b) Alterations to the conditions of the Tender can be done only by the authorized officer, at any time before the date and time of tender opening and would be duly communicated through a corrigendum.

c) **Suspension of Business dealings with Suppliers:**



(i) Before submitting offer, prospective bidders are advised to visit our web-site [www.bhel.com](http://www.bhel.com) / supplier registration to familiarize themselves with BHEL's policy and procedures of Suspension of Business Dealings with Suppliers.

Submission of offer shall be deemed to be evidence of the Bidder to have read and understood the above said policy.

**ii) Treatment of Banned / Under-performing Vendors:**

Any supplier who has been put on "Hold" or "Banned" from having business dealings with BHEL, Ranipet or any other unit of BHEL shall not submit their offer against this tender. If any such offers are received they would be summarily rejected and sent back. During the processing of tender, if any unit of BHEL puts a supplier on "Ban" then further processing of the offer will not be taken up and in case an order is placed, BHEL, Ranipet may resort at their discretion to cancel the PO either fully or partially.

If any of the supplier who is supplying similar material to BHEL, Ranipet has a Vendor Performance Rating (VPR) score of 'C' or below, then offer given by such parties will not be considered for ordering in this tender.

If any of the Bidders have unexecuted order/s with BHEL and if in such orders, the deliveries have been delayed beyond a reasonable period (say 30 days of agreed delivery period), the offer of such Bidders will also be liable for rejection.

Offers of such of those bidders against whom action for suspension of business dealings has been initiated by BHEL, Ranipet or any other Units/Division of BHEL will also not be considered in this tender.

**d) 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.

**e) Applicability of Integrity Pact:-**

IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. A panel of Independent External Monitors (IEMs) have been appointed to oversee implementation of IP in BHEL.

The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial bid. Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

Details of IEM for this tender is furnished below:

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Email \_\_\_\_\_

Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender.

Note:

*No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department*

*For all clarifications/ issues related to the tender, please contact:*

Name: (1) ..... (2) .....  
Dep't: .....  
Address: .....  
.....  
Phone:(Landline/Mobile) (1) ..... (2) .....  
Email:  
Fax:

Integrity Pact are applicable for all the BHEL enquiries whose estimated value is equal to or more than Rupees 05 Crores.

Copy of Integrity Pact with applicable nominated IEM is attached along with the tender documents for ready reference of Suppliers.

f) If any Supplier attempts to bribe, or pay commission, gift or any advantage or bring in undue influence either by himself or on his behalf any one including a stranger to the tender, in addition to instituting legal proceedings as per the extant laws prevailing, will disqualify the supplier from this tender and all future tenders of BHEL. Decision of the Purchaser would be final in this matter.

g) The laws governing this transaction shall be the laws in India.

h) Wherever not specified, Inco terms 2010 shall be used to interpret the Commercial terms and conditions and

i) In the event of an order, Supplier shall agree to settlement of disputes or differences, if any, by way of arbitration, in accordance with the “Rule of Arbitration” of the Indian Council of Arbitration.

*The language in the tender documents downloaded by the Bidders shall at no point of time be changed, altered or modified in any manner by the Tenderer. If such changes are made by any tenderer, it shall be considered as tampering with BHEL's terms and the offer shall be summarily rejected, whenever it is noticed by BHEL. Such Bidders would be disqualified from the Bidding Process and their offers would be forfeited / Bank Guarantees invoked. They would also not be allowed to participate in future tenders of BHEL.*

**M. Conditions for rejection of offers:**

**Following is the list of situations which would lead to rejection of offer/s.**

**This list is not exhaustive but only indicative.**

BHEL reserve the right to reject one or all offers without assigning any reason. The decision of BHEL will be final in this regard.

- 1. If the offer fails to meet the technical requirements/specifications of the tendered item/s.*
- 2. If the offer does not meet the commercial terms & conditions, such as but not limited to delivery period specified in the tender, Delivery terms, payment terms, Liquidated damages, Risk Purchase, cancellation clause etc., including the load factors specified in the tender.*
- 3. If the bidder fails to respond to clarification sought, within a reasonable period. In case of doubts / lack of clarity on the technical and commercial offer of the bidder, BHEL will seek clarifications. Bidders are required to respond completely to such BHEL's queries within 3 working days unless otherwise agreed to in writing by BHEL for period beyond 3 days. If supplier fails to respond within*

*3 working days or maximum 2 working days on a reminder thereon, the offer of such bidders will be automatically dis-qualified in the tender without further recourse to informing the bidder.*

*4. If any of the conditions listed below are applicable to the bidder, the offer is liable to be rejected:*

If any

- Debt recovery / Winding up Proceedings are initiated against the Company in Courts / Debt Recovery Tribunals (DRTs),
- Proceedings are there against the Company in National Company Law Tribunal (NCLT) with respect to Insolvency and Bankruptcy Code (IBC) or otherwise,
- Any proceedings are there against the Company under the “Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act,
- Any restructuring proceedings are underway for the Company under Corporate Debt Restructuring (CDR), Strategic Debt Restructuring (SDR) or otherwise,
- Divestment / demerger proceedings are underway for the Company under the Companies Act.
- If action under guidelines of suspension of business dealings (Ref AA/MM/SB/01 Rev 02 dt 22.07.2016) and its latest revisions has been initiated against the company/bidder.

*5. Failure to sign & accept the Integrity Pact (where applicable). Bidders are hereby informed that the contents of the Integrity Pact are firm and fixed and cannot be changed.*

The above list is not exhaustive but is indicative only.

**N. Special Note:**

BHEL is a Government of India Undertaking. Its procurement practices are governed by the (Internal) Purchase Policy issued by the management of the company and as per Annexure B applicable at the time of finalising the order against this tender.

**-O-**

**Record of Revisions:**

| Revision No. | Revision Date | Modification                                                                                                                                                                                                                                             |
|--------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01           | 17.08.2016    | Payment terms for Foreign suppliers modified wrt loading- Clause k.ii                                                                                                                                                                                    |
| 02           | 29.08.2016    | Treatment of banned vendors – Para 3 added - Clause L.ii                                                                                                                                                                                                 |
| 03           | 14.09.2016    | Opening of offers – clause B – sub clause ‘b’ included and existing clause ‘b’ renamed as ‘c’.                                                                                                                                                           |
| 04           | 14.09.2016    | Opening of offers – Note – sub clause (ii) modified                                                                                                                                                                                                      |
| 05           | 12.10.2016    | Clause N. Special Note added                                                                                                                                                                                                                             |
| 06           | 22.10.2016    | Clause G Reverse Auction modified.<br>Annexure on General Business Rules for Reverse Auction appended<br>Role of Principals added under ‘Miscellaneous’                                                                                                  |
| 07           | 20.01.2017    | Clause L (e) is modified.<br>Clause L (f ,g ,h) renumbered.                                                                                                                                                                                              |
| 08           | 24.02.2017    | Clause F(c) modified.                                                                                                                                                                                                                                    |
| 09           | 08.07.2017    | Clause M, Point 4 is added – regarding the financial health of the Bidder - as a criterion for disqualification.                                                                                                                                         |
| 10           | 20.07.2017    | Duties and Taxes replaced with GST; Applicability of GST for LD inserted in Clause E; Treatment of poor performing current vendors inserted in clause L.c.(ii)                                                                                           |
| 11           | 25.07.2017    | Clause A.Note (iii) CST etc., replaced with GST;<br>Clause C.f Deleted;                                                                                                                                                                                  |
| 12           | 15.09.2017    | Clause M, Point 5 inserted regarding Integrity Pact                                                                                                                                                                                                      |
| 13           | 21.03.2018    | Clause A, Point xi inserted regarding Overwriting in Price Bids                                                                                                                                                                                          |
| 14           | 28.05.2018    | Clause A, a),b),c),d) amended for M/s E-Procurement technologies, <a href="https://bhel.abcprocure.com">https://bhel.abcprocure.com</a> .<br>Clause A, (f, g, h) – modified.<br>Clause M, Point 4, - regarding suspension of business dealings inserted. |

## ANNEXURE

### Model General Business Rules for Reverse Auction

This has reference to tender no {tender number....date...}. BHEL shall finalise the Rates for the supply of {item name} through Reverse Auction mode. BHEL has made arrangement with M/s. {Service provider}, who shall be BHEL's authorized service provider for the same. Bidders should go through the instructions given below and submit acceptance of the same. The technical & commercial terms are as per (a) BHEL Tender Enq. No. {...} dated {...}, (b) Bidders' technical & commercial bid (in case of two part bid) and (c) subsequent correspondences between BHEL and the bidders, if any.

#### 1. Procedure of Reverse Auctioning

- i. Online Sealed Bid: This duration of online sealed bid will be {...} minutes. All bidders to submit their online sealed bids during this period.
- ii. Online Reverse Auction: The 'opening price' i.e. start price for RA and 'bid decrement' will be decided by BHEL.
- iii. If BHEL decides the lowest online sealed bid as the starting price, then the lowest bidder in online sealed bid shall be shown as current L1 automatically by the system and no acceptance of that price is required. System shall have the provision to indicate this bid as current L1.
- iv. Bidders by offering a minimum bid decrement or the multiples thereof can displace a standing lowest bid and become "L1" and this continues as an iterative process.
- v. After the completion of the online reverse auction, the Closing Price (CP) shall be available for further processing.

#### 2. Schedule for Reverse Auction: The Reverse Auction is tentatively scheduled on {date}:

and the duration of online sealed bid will be {...} minutes. All bidders to submit their online sealed bids during this period.

##### - Online Sealed Bid:-

- {Start Time:
- Close Time: }

##### - Online Reverse Auction:-

- {Start Time:
- Close Time: }

#### 3. Auction extension time:

If a bidder places a bid in the last {...} minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another {...} minutes, for the entire auction (i.e. for all the items in the auction), from the time that bid comes in. Please note that the auto-extension will take place only if a bid comes in those last {...} minutes and if that bid gets accepted as the lowest bid. If the bid does not get accepted as the lowest bid, the auto-extension will not take place even if that bid might have come in the last {...} minutes. In case, there is no bid in the last {...} minutes of closing of Reverse Auction, the auction shall get closed automatically without any extension. However, bidders are advised not to wait till the last

minute or last few seconds to enter their bid during the auto-extension period to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.

The above process will continue till completion of Reverse Auction.

Complaints/ Grievances, if any, regarding denial of service or any related issue should be given in writing thru e-mail/ fax to M/s. {Service provider} with a copy to BHEL within 15 minutes prior to initial closing time of Online Reverse Auction.

#### 4. Bid price: The Bidder has to quote the {...} Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, GST, Freight (bidder to provide original Freight paid

receipt), insurance charges, etc. including loading (if indicated by BHEL due to deviations in technical/commercial terms) for the Items specified. Details are as shown in Excel Sheet for calculation of total cost to BHEL (To be specified by Unit as per NIT conditions).

**5. Bidding currency and unit of measurement:**

Bidding will be conducted in *Indian Rupees per Unit* of the material as per the specifications {...}

In case of foreign currency bids, exchange rate (TT selling rate of State Bank of India) as on scheduled date of tender opening (Part-I bid) shall be considered for conversion in Indian Rupees. If the relevant day happens to be a Bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken.

**6. Validity of bids:** Price shall be valid for {... days} from the date of reverse auction. These shall not be subjected to any change whatsoever.

**7. Lowest bid of a bidder:** In case the bidder submits more than one bid, the lowest bid at the end of Online Reverse Auction will be considered as the bidder's final offer to execute the work.

**8.** Bidders shall be assigned a **Unique User Name & Password** by M/s. {Service provider}. Bidders are advised to change the Password and edit the information in the Registration Page after the receipt of initial Password from M/s. {Service provider} to ensure confidentiality. All bids made from the Login ID given to the bidders will be deemed to have been made by the bidders/ bidders' company.

**9.** Post auction procedure: BHEL will proceed with the Lowest Bid in the Reverse Auction for further processing.

**10.** Any commercial/ technical loading shall be intimated to bidders prior to RA. The excel sheet provided in this regard shall cover all these aspects. Commercial/ technical loading if any, shall be added by the respective bidder in its price during online sealed bid & Online Reverse Auction. Modalities of loading & de-loading shall be separately intimated to the bidders. The responsibility for correctness of total cost to BHEL shall lie with the bidders.

**11.** Computerized reverse auction shall be conducted by BHEL (through M/s. {Service Provider}), on pre-specified date, while the bidders shall be quoting from their own offices/ place of their choice. Internet connectivity shall have to be ensured by bidders themselves.

During the RA process if a bidder is not able to bid and requests for extension of time by FAX/ email/ phone then time extension of additional 15 minutes will be given by the service provider provided such requests come before 5 minutes of auction closing time. However, only one such request per bidder can be entertained. Despite this extension if bidder fails to upload his prices due to extreme case of failure of Internet connectivity, (due to any reason whatsoever may be) it is the bidders'

responsibility/ decision to send fax communication immediately to M/s. {Service provider}, furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price online so that the service provider will upload that price online on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable/ legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time /reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power or loss of connectivity at the premises of bidders during the Reverse auction cannot be the cause for not participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor M/s. {Service provider} is responsible for such eventualities.

**12. Proxy bids:** Proxy bidding feature is a pro-bidder feature to safeguard the bidder's interest of any internet failure or to avoid last minute rush. The proxy feature allows bidders to place an automated bid in the system directly in an auction and bid without having to enter a new amount each time a competing bidder submits a new offer. The bid amount that a bidder enters is the minimum that the bidder is willing to offer. Here the software bids on behalf of the bidder. This obviates the need for the bidder participating in the bidding process until the proxy bid amount is decrementally reached by other bidders. When proxy bid amount is reached, the bidder (who has submitted the proxy bid) has an option to start participating in the bidding process.

The proxy amount is the minimum amount that the bidder is willing to offer. During the course of bidding, the bidder cannot delete or change the amount of a proxy bid. Bids are submitted in decrements (decreasing bid amounts). The application automates proxy bidding by processing proxy bids automatically, according to the decrement that the auction originator originally established when creating the auction, submitting offers to the next bid decrement each time a competing bidder bids, regardless of the fact whether the competing bids are submitted as proxy or standard bids. However, it may please be noted that if a manual bid and proxy bid are submitted at the same instant manual bid will be recognized as the L1 at that instant. In case of more than one proxy bid, the system shall bid till it crosses the threshold value of 'each lowest proxy bid' and thereafter allow the competition to decide the final L1 price. Proxy bids are fed into the system directly by the respective bidders. As such this information is privy only to the respective bidder(s).

**13.** Bidders are advised to get fully trained and clear all their doubts such as refreshing of screen, quantity being auctioned, tender value being auctioned etc. from M/s. {Service provider}.

**14.** M/s. {Service provider}, shall arrange to demonstrate/ train the bidder or bidder's nominated person(s), without any cost to bidders. M/s. {Service provider}, shall also explain the bidders, all the business rules related to the Reverse Auction. Bidders are required to submit their acceptance to the terms/ conditions/modalities before participating in the Reverse Auction in the process compliance form as enclosed. Without this, the bidder will not be eligible to participate in the event.

**15.** Successful bidder shall be required to submit the final prices (L1) in prescribed format (Annexure-VI) for price breakup including that of line items, if required, quoted during the Online Reverse Auction, duly signed and stamped as token of acceptance without any new condition (other than those already agreed to before start of auction), after the completion of auction to M/s. {Service provider} besides BHEL within two working days of Auction without fail.

**16.** Any variation between the final bid value and that in the confirmatory signed price breakup Document will be considered as tampering the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)).

**17.** Bidders' bid will be taken as an offer to execute the work/ supplies of the item as per enquiry No. {...} dt. {...}. Bids once made by the bidder, cannot be cancelled/ withdrawn and bidder shall be bound to execute the work as mentioned above at bidder's final bid price. Should bidder back out and not execute the contract as per the rates quoted, BHEL shall take action as per extant guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)).

**18.** Bidders shall be able to view the following on their screen along with the necessary fields during Online Reverse Auction:

- a. Leading (Running Lowest) Bid in the Auction (only total price of package).
- b. Bid Placed by the bidder.
- c. Start Price.
- d. Decrement value.
- e. Rank of their own bid during bidding as well as at the close of auction

**19.** BHEL's decision on award of contract shall be final and binding on all the Bidders.

**20.** BHEL reserves the right to extend, reschedule or cancel the Reverse Auction process at any time, before ordering, without assigning any reason, with intimation to bidders.

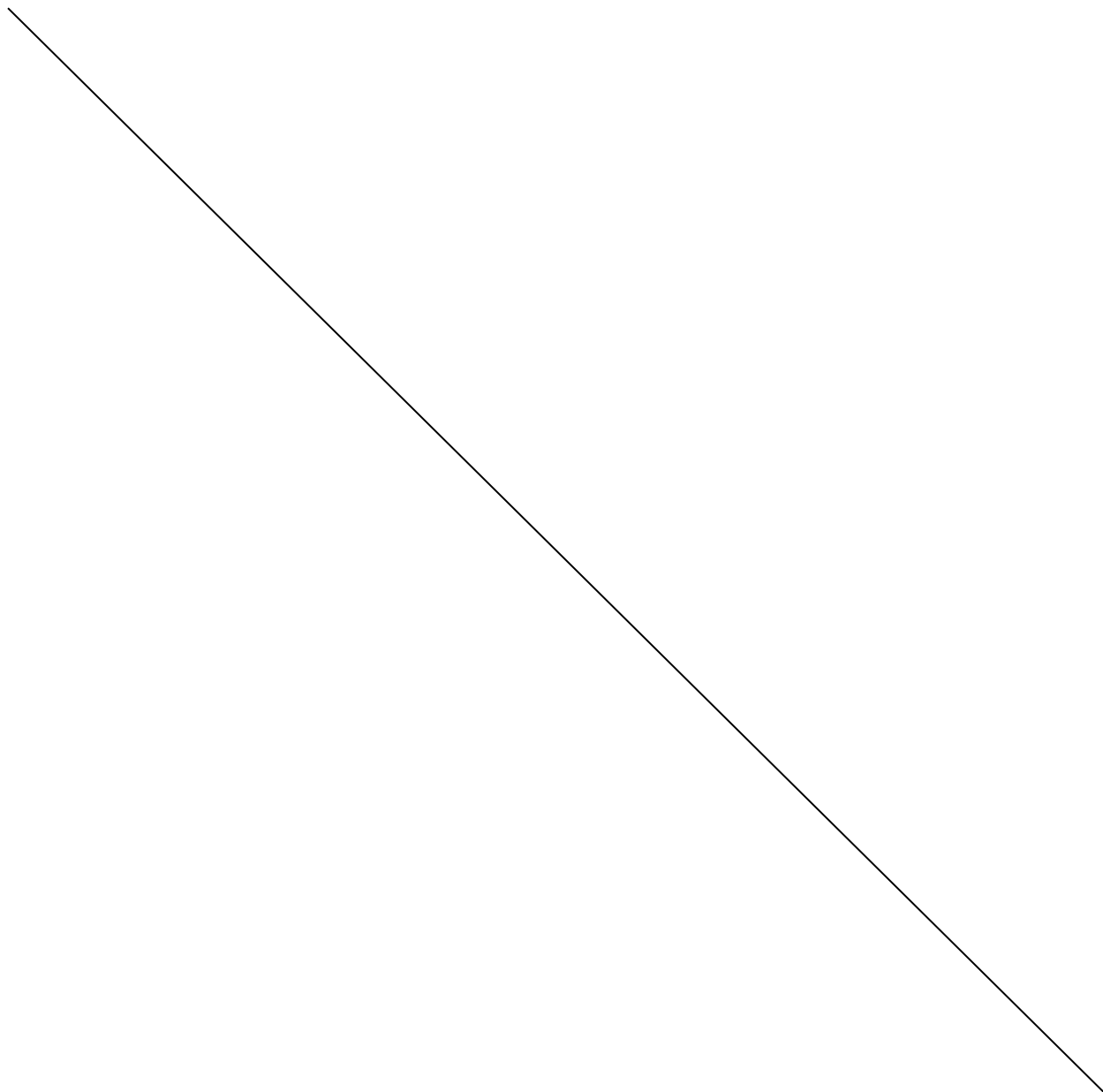


21. BHEL shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause. In such cases, the decision of BHEL shall be binding on the bidders.

22. Other terms and conditions shall be as per bidder's techno-commercial offers and other correspondences, if any, till date.

23. If there is any clash between this business document and the FAQ available, if any, in the website of M/s. {Service provider}, the terms & conditions given in this business document will supersede the information contained in the FAQs. Any changes made by BHEL/ service provider (due to unforeseen contingencies) after the first posting shall be deemed to have been accepted if the bidder continues to access the portal after that time..

24. Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party. 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 for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)), shall be initiated by BHEL.





**RA price confirmation and breakup**  
(To be submitted by L1 bidder after completion of RA)

To  
- M/s. Service provider  
- Postal address

CC: M/s BHEL

BOILER AUXILIARIES PLANT  
INDIRA GANDHI INDUSTRIAL COMPLEX  
RANIPET – 632406  
TAMILNADU  
INDIA.

Sub: Final price quoted during Reverse Auction and price breakup

Dear Sir,

We confirm that we have quoted.

**Rs.{ \_\_\_\_\_ in value & in words \_\_\_\_\_ } for item(s) covered under tender enquiry**  
**No. {...} dt.{...}**

Total price of the items covered under above cited enquiries is inclusive of {Packing & forwarding, GST, freight and insurance charges up to {.....}  
District, {.....} State and Type Test Charges etc., [exclusive of Goods & Services tax (GST)],  
other as  
per NIT}

as our final landed prices as quoted during the Reverse Auction conducted today {date} which will  
be valid for a period of { \_\_\_\_ in nos. & in words \_\_\_\_ } days.

The price break-up including that of line items is as given below.

|       |                          |
|-------|--------------------------|
| Total | =====                    |
|       | - Rs.in value & in words |
|       | =====                    |

Thanking you and looking forward to the valuable order from BHEL.

Yours sincerely,  
For \_\_\_\_\_  
Name:  
Company:  
Date:  
Seal:

| <p align="center"> <b>ANNEXURE - A</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - WATER SYSTEM</b><br/> <b>Commercial Terms and Conditions</b><br/> <b>BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS</b><br/> <b>Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT_39394)</b> </p> |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Sl. No.                                                                                                                                                                                                                                                                                                                                                                   | DESCRIPTION                                       | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | VENDOR (SELLER) CONFIRMATION |
| <b>I</b>                                                                                                                                                                                                                                                                                                                                                                  | <b><u>Technical</u></b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
| 01                                                                                                                                                                                                                                                                                                                                                                        | SCOPE OF SUPPLY                                   | Please confirm the Scope of Supply of <b>"BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES"</b> as per Specification No.<br>1) <b>ROS 6214 REV 00 DATE 25.05.2018 - TECHNICAL SPECIFICATION &amp;</b><br>2) <b>ROS 4205 REV 02 DATE 25.05.2018 - TECHNICAL SPECIFICATION FOR PNEUMATIC FLOW CONTROL &amp; ON/OFF ACTUATOR</b><br>attached by signing & returning a copy of the same.                                                                                                                                                         |                              |
| 02                                                                                                                                                                                                                                                                                                                                                                        | SPECIFICATION                                     | Please confirm Clause wise / Point wise "IN TOTO" for all specifications and submit along with offer.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |
| 03                                                                                                                                                                                                                                                                                                                                                                        | DATA SHEETS / DRAWINGS                            | Filled Data Sheets and Drawings are to be submitted along with offer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |
| 04                                                                                                                                                                                                                                                                                                                                                                        | QUALITY ASSURANCE PLAN (QAP)                      | To confirm applicable QAP will be followed. (OR) Supplier's Quality Plan to be submitted for our review and approval within 30 days from the date of Letter of Award (LOA).                                                                                                                                                                                                                                                                                                                                                                             |                              |
| 05                                                                                                                                                                                                                                                                                                                                                                        | SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR) | Attached SDDR to be filled & submit along with offer. (Even, If NO deviation is taken, NIL report to be submitted).                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
| 07                                                                                                                                                                                                                                                                                                                                                                        | PRE-QUALIFICATION REQUIREMENT                     | Vendor should submit the Filled QR Annexure & Necessary supporting documents proof for meeting the QR.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |
| 08                                                                                                                                                                                                                                                                                                                                                                        | CUSTOMER APPROVAL                                 | Vendor should submit the filled SUB VENDOR QUESTIONNAIRE along with their Credentials for our Customer Approval.                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| <b>II</b>                                                                                                                                                                                                                                                                                                                                                                 | <b><u>Commercial Terms &amp; Conditions</u></b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
| 01                                                                                                                                                                                                                                                                                                                                                                        | PRICE                                             | Please confirm 'Firm Price' till completion of order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
| 02                                                                                                                                                                                                                                                                                                                                                                        | UNPRICED BID (PART-1)                             | Please confirm submission of <b>'Unpriced bid'</b> in the price bid format attached duly signed.<br><br>SCANNED COPY of FILLED & SIGNED COPY OF 'Price Bid' format attached by filling all informations by writing <b>'Quoted'</b> as the case may be in the <b>'Rate'</b> and <b>'Value'</b> columns to be submitted through E-Procurement System.                                                                                                                                                                                                     |                              |
| 03                                                                                                                                                                                                                                                                                                                                                                        | PRICED BID (PART-2)                               | Please confirm submission of <b>'Priced bid'</b> in the price bid format attached duly signed.<br><br>SCANNED COPY of FILLED & SIGNED COPY OF <b>'Price Bid'</b> format attached by filling all informations by writing the value as the case may be in the <b>'Rate'</b> and <b>'Value'</b> columns in a separate attachment to be submitted through E-Procurement System.<br><br><b>Price bid opening will be considered after the Techno-Commercial evaluation &amp; further final approval from the customer: M/s. NTECL VALLUR 3 X 500 MW TPS.</b> |                              |
| 04                                                                                                                                                                                                                                                                                                                                                                        | DELIVERY TERMS & PRICE BASIS                      | Please confirm for FOR - Destination (NTECL VALLUR 3 X 500 MW TPS) basis.<br><br>Unloading the Material at site is under BHEL Scope.                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
| 05                                                                                                                                                                                                                                                                                                                                                                        | CONSIGNEE ADDRESS                                 | Please confirm supply to the following consignee address in the event of Order.<br><br><b>BHEL RANIPET Site Office,</b><br><b>NTPC TAMIL NADU ENERGY COMPANY LTD. (NTECL)</b><br><b>[VALLUR THERMAL POWER PROJECT (3X500 MW)]</b><br><b>P.O: Vellivoyal Chavadi,</b><br><b>Ponneri Taluk, Thiruvallur District,</b><br><b>Chennai- 600 103</b><br><br><b>On account of M/s BHEL, BAP, Ranipet - 632 406</b>                                                                                                                                             |                              |
| 06                                                                                                                                                                                                                                                                                                                                                                        | ORIGIN OF DESPATCH OF CONSIGNMENT                 | Please indicate clearly the origin of despatch of various consignments duly indicating whether interstate or intrastate based on the consignee address above. Origin of despatch should not be subjected to change during execution of contract.                                                                                                                                                                                                                                                                                                        |                              |
| 07                                                                                                                                                                                                                                                                                                                                                                        | PACKING & FORWARDING                              | Please confirm inclusion of Packing & Forwarding Charges in the Basic quoted price.<br><br>If it is extra payable by BHEL, Please clearly indicate the applicable Packing & Forwarding charges in % value.                                                                                                                                                                                                                                                                                                                                              |                              |

**ANNEXURE - A**  
**BHEL : BAP : RANIPET**  
**MM - WATER SYSTEM**  
**Commercial Terms and Conditions**  
**BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS**  
**Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT\_39394)**

| Sl. No. | DESCRIPTION                                     | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | VENDOR (SELLER) CONFIRMATION |
|---------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 08      | FREIGHT & INSURANCE                             | <p>Please confirm inclusion of Freight &amp; Insurance Charges towards this in the Basic quoted price.</p> <p>A) If Freight &amp; GST is extra payable by BHEL, Please clearly indicate the applicable portions of :<br/> 01.Freight charges in % on Basic Quoted price.<br/> 02.If GST applicable for the freight kindly indicate the same.</p> <p>B) If Insurance is extra payable by BHEL, Please clearly indicate the applicable portions of : Insurance charges in % on Basic Quoted price.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |
| 09      | GOODS AND SERVICES TAX (GST) FOR SUPPLY PORTION | <p>Please indicate the exact percentage of CGST/SGST/UTGST/IGST (whichever is applicable) is quoted as per the existing tariff on the date of the offer and all benefits as per existing laws have been considered.</p> <p>It is the responsibility of the seller to issue the Tax Invoice strictly as per the format prescribed under the relevant applicable GST law (CGST Act/SGST Act/UTGST Act/IGST Act).</p> <p>Vendor to indicate the proper GSTN Registration/ HSN code in their tax invoice.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |
| 10      | PAYMENT TERM FOR SUPPLY                         | <p>1. Vendor has to submit the Invoice for 100% of Basic price with applicable % of GST, Freight with GST if any. BHEL will be released the 90% Payment of basic price of materials supplied, along with freight, taxes and duties (as applicable), shall be paid against receipt of material at site and submission of Bank Guarantee for 10% of PO value valid till guarantee period towards performance before first submission of documents for payment.</p> <p>BG - 10% of Order/ Contract value (excluding taxes, duties &amp; freight) before first submission of documents for payment to cover the due performance of Order/ Contract and to fulfill the guarantee conditions stipulated in the Order/ Contract.</p> <p><b>Validity of the Bank Guarantee shall be for the entire Guarantee period. Initially, it should be at least 18 months plus 3 months claim period, later extended to cover the entire guarantee period, two months before its expiry.</b></p> |                              |
|         |                                                 | <p>2.Balance Ten percent (10%) of basic price of materials supplied will be released after commissioning of BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES alone.</p> <p>If BHEL delay the commissioning more than 150 days from the date of last supply then BHEL will release the final 10% payment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| 11      | CONFIRM THE PAYMENT TERM FOR SUPPLY.            | <p>Differential Payments applicable for Supply - Within 45 days for MSE vendor &amp; 90 days for Non MSE vendors</p> <p>Please confirm your status in case of MSME with relevant proof.</p> <p><b>For MSE Registration, you have to submit the Notarized copy of MSE certificate with Original CA certificate</b></p> <p><b>Offers with payment Terms such as Cash against Delivery / advance payment / payment through Bank against dispatch documents will be summarily rejected</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |

**ANNEXURE - A**  
**BHEL : BAP : RANIPET**  
**MM - WATER SYSTEM**  
**Commercial Terms and Conditions**  
**BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS**  
**Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT\_39394)**

| Sl. No. | DESCRIPTION                                                                                                                                                                                     | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | VENDOR (SELLER) CONFIRMATION |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 12      | DELIVERY PERIOD FOR THE SUPPLY                                                                                                                                                                  | <p>Please confirm the supply completion on or before <b>24.12.2018 or 6 Months</b> from the date of Manufacturing clearance, which ever is Later.</p> <p>Vendor to submit all drawings/documents within 2 weeks from the date of purchase order and resubmit the drawings/documents within 1 week incorporating all the comments.</p> <p>In case there are delays of submission of drawings/documents beyond 2 weeks of order or 1 week of comments, that much days of delay would be reduced from delivery period.</p> <p>Vendor can also quote improved delivery date if any or otherwise, please clearly indicate the delivery period in weeks / months from the date of Manufacturing clearance.</p> <p>NOTE: Delivery period shall be reckoned till receipt of materials at site. For LD Purpose, Date of site receipt of material will only be considered.</p> |                              |
| 13      | LIQUIDATED DAMAGES (LD) - Supply Portion                                                                                                                                                        | Purchaser reserves the right to recover from the Seller/ Contractor, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the Service Portion price per week or part thereof, subject to a maximum of ten (10) percent of the total contract price including GST & if any, if the Seller/ Contractor fails to deliver any part of the ordered stores within the period stipulated in the Order/ Contract.                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
| 14      | OFFER VALIDITY                                                                                                                                                                                  | Please confirm Offer Validity for a minimum period of 60 days from the date of price bid opening.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
| 15      | INSPECTION                                                                                                                                                                                      | Please confirm for 'Inspection' of all the Items by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the dispatch of the item at vendor works as per approved QAP. Please note that no payment will be made by BHEL towards inspection.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 16      | TEST CERTIFICATE (TC)                                                                                                                                                                           | Please confirm that required TC will be provided at 'No Extra Cost'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
| 17      | GUARANTEE CERTIFICATE (GC) - Supply Portion.                                                                                                                                                    | Please confirm furnishing of Guarantee certificate in BHEL format for 12 months from the date of commissioning or 18 months from the date of last despatch whichever is earlier.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
| 18      | <b>Contract Execution Bank Guarantee (CEBG).</b><br>Ple Ref: ANNEXURE –A<br>GENERAL TERMS & CONDITIONS<br>(FOR GUIDANCE TO THE SUPPLIERS)Under Clause -J]<br>Contract Execution Bank Guarantee: | To demonstrate the fidelity of the successful bidder, in executing the Contract, on receipt of the Letter of Intent / Purchase Order, the Supplier shall arrange to provide a contract execution bank guarantee (CEBG).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |
| 19      | BANK GUARANTEE (BG)<br>TOWARDS Supply Portion (10% OF ORDER VALUE)                                                                                                                              | BG to be submitted in the format issued by BHEL.<br>BG for 10% of the Total PO Value. Validity of the Bank Guarantee shall be for the entire Guarantee period. Initially, it should be at least 18 months, later extended to cover the entire guarantee period, two months before its expiry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| 20      | ERECTION MANUAL<br>(INSTALLATION INSTRUCTIONS)                                                                                                                                                  | Please confirm for providing of 'comprehensive Erection Manual covering the entire supply which include bought-outs' 6 sets in Hard copy & one CD form.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |
| 21      | O & M MANUAL                                                                                                                                                                                    | Please confirm for providing of 'comprehensive O&M Manual covering the entire System' 6 sets in Hard copy & one CD form.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
| 22      | REVERSE AUCTION                                                                                                                                                                                 | <p>Please see the Clause in the main enquiry regarding Reverse Auction (RA). RA will be conducted through our Service Provider. Vendor to confirm acceptance.</p> <p>Please note that in case BHEL decides not to conduct RA, the sealed price bids along with the impact price bids arising out of techno-commercial discussions already available with BHEL only will be opened. Please note that no impact price due to non-conductance of RA will be accepted. Vendor to confirm acceptance.</p>                                                                                                                                                                                                                                                                                                                                                                 |                              |
| 23      | RISK PURCHASE CLAUSE<br>(CLAUSE No. 6 of General Terms and Conditions for Indigenous offer)                                                                                                     | BHEL's Standard Risk Purchase clause will be applicable. Please confirm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
| 24      | ZERO DATE<br>(CONTRACT EFFECTIVE DATE)                                                                                                                                                          | Contract Effective date starts from Manufacturing Clearance subject to Documents submission clause.<br>Please confirm for 'Date of Manufacturing Clearance'.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |

| <p align="center"> <b>ANNEXURE - A</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - WATER SYSTEM</b><br/> <u><b>Commercial Terms and Conditions</b></u><br/> <b>BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS</b><br/> <b>Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT_39394)</b> </p> |                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Sl. No.                                                                                                                                                                                                                                                                                                                                                                          | DESCRIPTION                                                                                                                                                                                                               | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                        | VENDOR (SELLER) CONFIRMATION |
| 25                                                                                                                                                                                                                                                                                                                                                                               | Loading Criteria                                                                                                                                                                                                          | <p>Please note that no Commercial deviation is acceptable to BHEL. In case any deviation is taken in any of the commercial terms such as PAYMENT TERMS, LD, PBG, etc., where in we have specified the days, percentages etc., then loading will be done to the extent of the short fall with respect to the upper Limit specified for evaluation.</p> <p>In respect of LD offers which do not accept for LD Clause would be summerly rejected - Please Confirm.</p> |                              |
| 26                                                                                                                                                                                                                                                                                                                                                                               | NEGOTIATION                                                                                                                                                                                                               | In the event of negotiation if any, please confirm participation only by supplier's representative and not by their Agent which include indian Agent in the case of Foreign Offer.                                                                                                                                                                                                                                                                                  |                              |
| 27                                                                                                                                                                                                                                                                                                                                                                               | OTHER DOCUMENTS FOR APPROVAL (BBU)                                                                                                                                                                                        | In the event of order vendor should confirm the submission of BBU for the complete system supply with break up for each line item as well as quantities with value.                                                                                                                                                                                                                                                                                                 |                              |
| 28                                                                                                                                                                                                                                                                                                                                                                               | PLEASE PROVIDE THE STATUTORY DETAILS (Submit a copy of PAN, if not submitted already)                                                                                                                                     | GST Regn. Number<br>HSN NO.: HARMONIZED SYSTEM OF NOMENCLATURE UNDER GST FOR THE OFFERED ITEM<br>TIN :<br>PAN No. :                                                                                                                                                                                                                                                                                                                                                 |                              |
| 29                                                                                                                                                                                                                                                                                                                                                                               | CONTACT PERSON'S ON TECHNICAL DETAILS FOR CORRESPONDENCE                                                                                                                                                                  | Name:<br>Designation:<br>Phone No.:<br>Mobile No.:<br>Fax No.:<br>E-mail ID:                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| 30                                                                                                                                                                                                                                                                                                                                                                               | CONTACT PERSON'S ON COMMERCIAL DETAILS FOR CORRESPONDENCE                                                                                                                                                                 | Name:<br>Designation:<br>Phone No.:<br>Mobile No.:<br>Fax No.:<br>E-mail ID:                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| 31                                                                                                                                                                                                                                                                                                                                                                               | <p><b>BHEL will not take cognizance of commercial terms mentioned by the bidder any where else.</b></p> <p><b>Commercial terms and conditions indicated in this Annexure - A will only be applicable and binding.</b></p> | Acceptance Required                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
| <p align="right">Signature, Seal &amp; Date of offerer on all the pages.</p>                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |

**ANNEXURE - D**  
**BHEL : BAP : RANIPET**  
**MM - WATER SYSTEM**  
**UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)**  
**BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS**  
**Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT\_39394)**

| PRICE OFFER FORMAT    |                                                                                                                                                                                                                                          |      |       |                       |                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-----------------------|------------------|
| Enquiry<br>Sl.<br>No. | Description                                                                                                                                                                                                                              | Unit | Qty.  | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 001                   | RWT806430001<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>OF SIZE DN100, PN10<br>AS PER SL NO.1 OF TABLE- B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018         | ST   | 41.00 |                       |                  |
| 002                   | RWT806430002<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN100, PN10 LEVER OPERATED<br>AS PER SL NO.2 OF TABLE -B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                        | ST   | 4.00  |                       |                  |
| 003                   | RWT806430003<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN150, PN10<br>AS PER SL NO. 3 OF TABLE-B OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                                       | ST   | 5.00  |                       |                  |
| 004                   | RWT806430004<br>PNEUMATIC ON-OFF BUTTERFLY VALVE DN80,<br>PN10<br>AS PER SL NO. 4 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018                  | ST   | 11.00 |                       |                  |
| 005                   | RWT806430005<br>PNEUMATIC ON / OFF BUTTERFLY VALVE<br>DN150,PN10 LEVER OPERATED<br>AS PER SL NO. 5 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 | ST   | 2.00  |                       |                  |
| 006                   | RWT806430006<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN200, PN10<br>AS PER SL NO.6 OF TABLE -B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                                        | ST   | 4.00  |                       |                  |
| 007                   | RWT806430007<br>MANUAL BUTTERFLY VALVE<br>DN250, PN10 GEAR WITH HAND WHEEL<br>AS PER SL NO. 7 OF TABLE- B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                         | ST   | 14.00 |                       |                  |

| <p style="text-align: center;"><b>ANNEXURE - D</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - WATER SYSTEM</b><br/> <b>UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)</b><br/> <b>BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS</b><br/> <b>Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT_39394)</b></p> |                                                                                                                                                                                                                                   |      |       |                       |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-----------------------|------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                   |      |       |                       |                  |
| Enquiry<br>Sl.<br>No.                                                                                                                                                                                                                                                                                                                                                                                                     | Description                                                                                                                                                                                                                       | Unit | Qty.  | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 008                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430008<br>PNEUMATIC FLOW CONTROL BUTTERFLY<br>VALVE OF SIZE DN250<br>AS PER SL NO. 8 OF TABLE- B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 | ST   | 10.00 |                       |                  |
| 009                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430009<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>DN250, PN10<br>AS PER SL NO. 9 OF TABLE- B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018         | ST   | 24.00 |                       |                  |
| 010                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430012<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>OF SIZE DN300, PN10<br>AS PER SL NO.10 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018  | ST   | 21.00 |                       |                  |
| 011                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430013<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN300, PN10,<br>GEAR WITH HAND WHEEL OPERATED<br>AS PER SL NO.11 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018               | ST   | 20.00 |                       |                  |
| 012                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430014<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN350, PN10,<br>GEAR WITH HAND WHEEL OPERATED<br>AS PER SL NO.12 OF TABLE-B OF<br>ANNEXURE-1 OF TECHNICAL SPECIFICATION<br>NO.<br>ROS 6214 REV 00 DATE 25.05.2018               | ST   | 2.00  |                       |                  |
| 013                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430015<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN400, PN10,<br>WITH OPEN CLOSE LIMIT SWITCH<br>AS PER SL NO. 13 OF TABLE -B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.             | ST   | 6.00  |                       |                  |

**ANNEXURE - D**  
**BHEL : BAP : RANIPET**  
**MM - WATER SYSTEM**  
**UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)**  
**BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS**  
**Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT\_39394)**

| PRICE OFFER FORMAT    |                                                                                                                                                                                                                                                                            |      |       |                       |                  |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-----------------------|------------------|
| Enquiry<br>Sl.<br>No. | Description                                                                                                                                                                                                                                                                | Unit | Qty.  | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 014                   | RWT806430016<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN300, PN10,<br>WITH LIMIT SWITCH WITH HAND WHEEL<br>OPERATED<br>AS PER SL NO. 14 TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                          | ST   | 2.00  |                       |                  |
| 015                   | RWT806430017<br>PNEUMATIC ON / OFF BUTTERFLY VALVE<br>OF SIZE DN350, PN10<br>WITH ACTAUTOR, HAND WHEEL OPERATED<br>AS PER SL NO.15 OF TABLE -B OF<br>ANNEXURE- 1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 | ST   | 10.00 |                       |                  |
| 016                   | RWT806430019<br>WAFER TYPE SWING CHECK VLAVE<br>OF DN150, PN10<br>AS PER SL NO.16 OF TABLE-B OF<br>ANNEXURE-1 OF TECHNICAL SPECIFICATION<br>NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                                                                        | ST   | 2.00  |                       |                  |
| 017                   | RWT806430020<br>WAFER TYPE SWING CHECK VALVE<br>OF SIZE DN300, PN10<br>AS PER SL NO. 17 OF TABLE -B OF<br>ANNEXURE-1 OF TECHNICAL SPECIFICATION<br>NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                                                                 | ST   | 2.00  |                       |                  |
| 018                   | RWT806430021<br>WAFER TYPE SWING CHECK VALVE<br>OF SIZE DN100, PN10<br>AS PER SL NO.18 OF TABLE- B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018                                              | ST   | 20.00 |                       |                  |
| 019                   | RWT806430022<br>WAFER TYPE SWING CHECK VALVE<br>OF SIZE DN350, PN10<br>AS PER SLNO.19 OF TABLE-B OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                                                                    | ST   | 1.00  |                       |                  |

| <p style="text-align: center;"><b>ANNEXURE - D</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - WATER SYSTEM</b><br/> <b>UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)</b><br/> <b>BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS</b><br/> <b>Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT_39394)</b></p> |                                                                                                                                                                                                                                            |      |      |                       |                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-----------------------|------------------|
| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                            |      |      |                       |                  |
| Enquiry<br>Sl.<br>No.                                                                                                                                                                                                                                                                                                                                                                                                     | Description                                                                                                                                                                                                                                | Unit | Qty. | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 020                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430023<br>WAFFER TYPE SWING CHECK VALVE<br>DN400, PN10<br>AS PER SL NO.20 OF TABLE- B OF ANNEXURE-1<br>OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                                         | ST   | 8.00 |                       |                  |
| 021                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430024<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>OF SIZE DN100, PN10,<br>AS PER SL NO.1 OF TABLE-C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018           | ST   | 1.00 |                       |                  |
| 022                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430024<br>MANUAL BUTTERFLY VALVE<br>DN100, PN10, LEVER OPERATED<br>AS PER SL NO.2 OF TABLE -C OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                                | ST   | 1.00 |                       |                  |
| 023                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430026<br>PNEUMATIC ON / OFF BUTTERFLY VALVE DN80,<br>PN10, LEVER OPERATED<br>AS PER SL NO.3 OF TABLE- C OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 | ST   | 1.00 |                       |                  |
| 024                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430027<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>OF SIZE DN150, PN10<br>AS PER SL NO. 4 OF TABLE-B OF<br>ANNEXURE-I OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018           | ST   | 1.00 |                       |                  |
| 025                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430028<br>MANUAL BUTTERFLY VALVE<br>DN150, PN10, LEVER OPERATED<br>AS PER SL NO.5 OF TABLE-C OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                                 | ST   | 1.00 |                       |                  |
| 026                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430029<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN200, PN10<br>AS PER SL NO.6 OF TABLE-C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                                           | ST   | 1.00 |                       |                  |

| <p style="text-align: center;"><b>ANNEXURE - D</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - WATER SYSTEM</b><br/> <b>UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)</b><br/> <b>BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS</b><br/> <b>Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT_39394)</b></p> |                                                                                                                                                                                                                                  |      |      |                       |                  |
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| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                  |      |      |                       |                  |
| Enquiry<br>Sl.<br>No.                                                                                                                                                                                                                                                                                                                                                                                                     | Description                                                                                                                                                                                                                      | Unit | Qty. | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 027                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430030<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>OF SIZE DN250, PN 10<br>AS PER SL NO.7 OF TABLE-C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 | ST   | 1.00 |                       |                  |
| 028                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430031<br>MANUAL BUTTERFLY VALVE<br>OF DN250, PN10,<br>GEAR WITH HAND WHEEL OPERATED<br>AS PER SL NO. 8 OF TABLE- C OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                | ST   | 1.00 |                       |                  |
| 029                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430032<br>PNEUMATIC ON/OFF BUTTERFLY VALVE<br>OF SIZE DN300, PN10<br>AS PER SL NO.9 OF TABLE- C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 | ST   | 1.00 |                       |                  |
| 030                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430033<br>MANUAL BUTTERFLY VALVE WITH LIMIT<br>SWITCH OF SIZE DN300, PN10<br>AS PER SL NO. 10 OF TABLE-C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                            | ST   | 1.00 |                       |                  |
| 031                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430034<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN350, PN10<br>GEAR WITH HAND WHEEL OPERATED<br>AS PER SL NO.11 OF TABLE -C OF<br>ANNEXURE -1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018             | ST   | 1.00 |                       |                  |
| 032                                                                                                                                                                                                                                                                                                                                                                                                                       | RWT806430035<br>WAFERT TYPE SWING CHECK VALVE<br>OF SIZE DN100,PN10<br>AS PER SL NO.12 OF TABLE-C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                          | ST   | 1.00 |                       |                  |

**ANNEXURE - D**  
**BHEL : BAP : RANIPET**  
**MM - WATER SYSTEM**  
**UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)**  
**BUTTERFLY VALVE (MANUAL & PNEUMATIC) & CHECK VALVES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS**  
**Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT\_39394)**

| PRICE OFFER FORMAT    |                                                                                                                                                                                                                                                     |      |      |                       |                  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-----------------------|------------------|
| Enquiry<br>Sl.<br>No. | Description                                                                                                                                                                                                                                         | Unit | Qty. | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 033                   | RWT806430036<br>WAFER TYPE SWING CHECK VALVE<br>OF SIZE DN150, PN10<br>AS PER SL NO.13 OF TABLE- C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018<br>(MANDATORY SPARE). | ST   | 1.00 |                       |                  |
| 034                   | RWT806430037<br>WAFER TYPE SWING CHECK VALVE<br>OF SIZE DN300, PN10<br>AS PER SL NO.14 OF TABLE - C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018                      | ST   | 1.00 |                       |                  |
| 035                   | RWT806430039<br>WAFER TYPES WING CHECK VALVE<br>OF SIZE DN350, PN10<br>AS PER SL NO.15 OF TABLE - C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018.                                                          | ST   | 1.00 |                       |                  |
| 036                   | RWT806430040<br>WAFER TYPE SWING CHECK VALVE<br>OF SIZE DN400, PN10<br>AS PER SL NO.16 OF TABLE -C OF<br>ANNEXURE- 1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                                           | ST   | 1.00 |                       |                  |
| 037                   | RWT806430041<br>SMART POSITIONER UNIT<br>FOR SL NO.8 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018<br>AS SPARE.                                             | ST   | 1.00 |                       |                  |
| 038                   | RWT806430042<br>MANUAL BUTTERFLY VALVE<br>OF SIZE DN400, PN10<br>GEAR WITH HAND WHEEL OPERATED<br>AS PER SL NO.21 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018                                  | ST   | 9.00 |                       |                  |

| <p align="center"><b>ANNEXURE - D</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>MM - WATER SYSTEM</b><br/> <b>UN PRICED OFFER / PRICE OFFER ( Please Tick whichever is applicable)</b><br/> <b>BUTTERFLY VALVE (MANUAL &amp; PNEUMATIC) &amp; CHECK VALVES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS</b><br/> <b>Enquiry No. 7780409E DATED 21-JUN-2018 Due Date 12-JUL-2018 (NIT_39394)</b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |                       |                  |
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| PRICE OFFER FORMAT                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |                       |                  |
| Enquiry<br>Sl.<br>No.                                                                                                                                                                                                                                                                                                                                                                                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit | Qty. | Rate / Unit<br>in Rs. | Amount in<br>Rs. |
| 039                                                                                                                                                                                                                                                                                                                                                                                                          | RWT806430043<br>PNEUMATIC ON / OFF BUTERFLY VALVE<br>OF SIZE DN350, PN10 WITH<br>ACTUATOR, HAND WHEEL OPERATED<br>AS PER SL NO.18 OF TABLE-C OF<br>ANNEXURE - 1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018                                                                                                                                                                                                                                                                                                                                  | ST   | 1.00 |                       |                  |
| 040                                                                                                                                                                                                                                                                                                                                                                                                          | RWT806430044<br>MOTORIZED ON- OFF BUTTERFLY VALVE<br>OF SIZE DN400, PN10<br>WITH MOTORIZED ACTUATOR<br>AS PER SL NO. 22 OF TABLE-B OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018                                                                                                                                                                                                                                                                                                                                              | ST   | 4.00 |                       |                  |
| 041                                                                                                                                                                                                                                                                                                                                                                                                          | RWT806430045<br>MOTORIZED ON- OFF BUTTERFLY VALVE<br>OF SIZE DN400, PN10<br>WITH MOTORIZED ACTUATOR<br>AS PER SL NO. 19 OF TABLE -C OF<br>ANNEXURE-1 OF<br>TECHNICAL SPECIFICATION NO.<br>ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018                                                                                                                                                                                                                                                                                                                                             | ST   | 1.00 |                       |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                              | <b>A) Total Base Price (Total of Sl. No. 001 -041)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |      |                       |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                              | <b>B) Packing &amp; Forwarding Charges (If Payable Extra by BHEL)_____ %</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |      |                       |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                              | <b>C) Freight Charges (If Payable Extra by BHEL)_____ %</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |      |                       |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                              | <b>D) Insurance Charges (If Payable Extra by BHEL)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |      |                       |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                              | <b>E) Applicable percentage of CGST/SGST/UTGST/IGST - _____ %<br/>(whichever is applicable) for A+B+C+D<br/>HSN CODE : _____</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |      |                       |                  |
|                                                                                                                                                                                                                                                                                                                                                                                                              | <b>F) Total Landed Cost( Sum of A+B+C+D+E)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |      |                       |                  |
| <b>IMPORTANT NOTES</b>                                                                                                                                                                                                                                                                                                                                                                                       | 1) All the Items are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per the drgs detailed in the description.<br>2) All the items will be compared on SET Basis & Order will be placed on a Single vendor who is the lowest (L1) on set basis,<br>3) Please confirm the supply completion with in 24.12.2018 or 6 Months from the date of Manufacturing clearance, which ever is Later.<br>4) Vendor can also quote improved delivery date if any from the date of LOA. |      |      |                       |                  |
| <b>Signature &amp; Seal of Offerer</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |      |                       |                  |

| ANNEXURE - E<br>SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR)    |        |                                                                                                         |                     |
|----------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------------------|---------------------|
| Enq.No & Date                                                        |        | Enquiry No. 7780409E DATED 21-JUN-2018 Due<br>Date 12-JUL-2018 (NIT_39394)                              | Vendor Name         |
| ROS 6214 REV 00 DATE 25.05.2018 &<br>ROS 4205 REV 02 DATE 25.05.2018 |        | BUTTERFLY VALVE (MANUAL &<br>PNEUMATIC) & CHECK VALVES<br>FOR UF PLANT - NTECL VALLUR 3 X 500<br>MW TPS |                     |
| Page                                                                 | Clause | Details Of Deviation With Reason                                                                        | Disposition By BHEL |
|                                                                      |        |                                                                                                         |                     |
| Signature Of Vendor                                                  |        |                                                                                                         | Reviewed By         |
| “ AGREED DEVIATION “                                                 |        |                                                                                                         | APPROVED BY         |
| if any to be incorporated in the PO in the event of order.           |        |                                                                                                         |                     |

Date :

VENDOR's SIGNATURE WITH SEAL

*(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 3 MONTHS FROM THE DATE OF COMPLETION OF SUPPLIES)*

### **CONTRACT EXECUTION BANK GUARANTEE**

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at "BHEL House", SIRI Fort, New Delhi 110 049) through its Boiler Auxiliaries Plant located at Ranipet – 632 406, (hereinafter called 'the Company') having entered into a contract with M/s.....  
..... hereinafter called 'the said contractor' which term includes 'suppliers' for the purpose of this Bond and under the terms and conditions of the Contract No.....Dt.....between BHEL, Ranipet and as per the Contract, the Contractor / Supplier is to furnish a Contract Execution Bank Guarantee for Rs.....in words.....  
.....for the due performance of the contract and for the fulfillment of all the terms and conditions of the contract.

Sign and seal of issuing bank  
Please affix Non Judicial Stamp  
here, as per Stamp Act

Bank Guarantee No.....Date.....Banker Name.....  
Bank Guarantee Value Rs.....

1. We.....  
.....  
.....(Bank's name, Branch, Place – address to be mentioned [herein after referred to as the Bank) at the request of.....  
.....(Contractor(s)] do hereby undertake to pay the company an amount not exceeding Rs.....in words  
.....  
.....  
.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said Contractor(s) of any of the terms and conditions contained in the said agreement.

2. We.....  
.....  
.....(name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the Contractor(s) 'failure to perform' the said agreement. 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.....in words.....  
.....

Sign and seal of issuing bank

Bank Guarantee No.....Date.....Banker Name.....  
Bank Guarantee Value Rs.....

3. We undertake to pay conditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(name of Bank), 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 Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till Purchase Department of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (i) Unless a demand or claim under this guarantee is made on us in writing on or before .....(date) (After 3 months from the date of completion of supplies) we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date. (ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack. Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the Bank personally.

Sign and seal of issuing bank

Bank Guarantee No.....Date.....Banker Name.....  
Bank Guarantee Value Rs.....

6. We.....(name of the Bank), further agree with the company that the Company 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 agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) 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 any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

8. The guarantee herein contained shall not be determined or affected by the liquidation or winding up or insolvency of or change in the constitution of the Contractor, but shall in all respects and for all purpose be binding and operative until all payments of all moneys due or that may hereafter become due to the said company or settled irrespective of any liability or obligation of the Contractor under the said Contract.

9. It shall not be necessary for the company to proceed against the Contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained from the Contractor shall, at the time when proceedings are taken against the Guarantor hereunder be outstanding or unrealized.

10. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Ranipet, Tamilnadu Jurisdiction.

11. The Bank declares that it has powers to issue this Guarantee under the Bank's Memorandum and Articles of Association and the undersigned has full powers to do so on its behalf under the power granted to him by the proper authorities of the Bank.

12. We .....(name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we.....  
(name of Bank) have hereunto setout Bank Seal the.....  
day of.....month 20\_\_.

Sign and seal of issuing bank.

## **Online SRF Submission Procedure**

Following are the formalities to be completed by your company for registration purpose.

**NOTE: BEFORE PROCEEDING FOR ONLINE REGISTRATION " PLS READ STEPS FOR FILLING UP ONLINE REGISTRATION FORM - HELP MENU" - DETAILS ATTACHED WITH THIS MAIL**

With effect from 01.04.2015 onwards, we have migrated to online Supplier Registration Form (SRF) as per our Corporate guidelines. **Supplier Registration Form (SRF)** is to be fed in our BHEL website portal – **ie., PDF documents of SRF and its annexure as called for shall be signed by authorized signatory & uploaded in portal.**

We request to visit our Web Site : [www.bhel.com](http://www.bhel.com) and click under heading "Supplier Registration" and fill up the **"Supplier Registration Form"** which is available in the Online Supplier Registration Portal.

Or else, copy the following URL Link and paste in the web link address: [http://www.bhel.com/vender\\_registration/vender.php](http://www.bhel.com/vender_registration/vender.php) and proceed with.

Or else, type directly as <http://203.129.195.108>

**Click the button "search material"** on the home page of supplier registration portal and search thoroughly your required material / product

*After completing the material search then proceed for User Id & Password for filling up the details of registration requirements. **Note: If you are an already registered supplier with any of our BHEL Unit - pls select "existing permanent supplier" or else select "New Registration" and then proceed accordingly.***

**Please note that for a foreign suppliers' there is a separate format to be filled in, which may be taken care suitably.**

After successful submission of SRF along with all annexures as called for thro' online i.e., authorized signatory signed pdf documents of SRF and its annexures are to be uploaded thro' online portal and confirm the same in **"form dispatch"** area ie., registration part-4 – wherein supplier has to confirm that all the documents were submitted "online" and click the button **"confirm"**. After clicking confirmation button, the same will be appearing against BHEL Ranipet for registration.

Looking for a long successful & sustaining business association with BHEL.

## TERMS AND CONDITIONS FOR INDIGENOUS OFFERS

- a) **Quotations :** Each Tender should be sent in duplicate in a sealed cover. Inner cover should be sealed with tender's distinctive seal and superimposed with correct Tender No., item of supply and due date of opening. Tender should not be addressed to any individual's names but only by designation and shall be addressed to Dy. Manager/Purchase, BHARAT HEAVY ELECTRICALS LIMITED, BOILER AUXILIARIES PLANT, INDIRA GANDHI INDUSTRIAL COMPLEX, RANIPET, VELLORE DISTRICT - 632406, INDIA.
1. Detailed Technical Literature / Write - up
2. Latest Catalogue covering the items in quote.
3. Detailed Dimensional Drawing.
- b) Tenders should be neatly typewritten and should be free from CORRECTION AND ERASURES. Corrections, if any, must be attested. All amount shall be indicated both in words as well as in figures. Where there is difference between amount quoted in words and figures, amount quoted in words shall prevail.
- c) Price should be net F.O.R. destination inclusive of risk in transit and remain valid for 90 days from the due date.
- d) If any Sales Tax is payable as extra to the quoted price it should be specifically stated in quotation failing which the purchaser will not be liable for payment of Sales Tax. Our TIN No. 33024364741 & CST Number 1141696.
- e) Products with I.S.I certification mark will be preferred.
- f) The applicable rate of excise duty shall be clearly indicated in the quote itself.
- g) The tenderer shall fill up the specification Deviation Disposition Report either NIL or the deviation taken by the tenderer against the Tender specification.
2. **Samples :** Wherever possible samples should be submitted separately whether specifically requested or not, so as to reach the purchase on or before the due date of the enquiry. They should be clearly marked with the Enquiry No. and the date on the outside cover to facilitate identification.
3. **Packing and Marking :** The supplier shall arrange for securely protecting and packing the stores to avoid loss or damages during transit.
4. **Terms of Payment :** Payment will be made within 45 days for MSME (Small / Micro) Vendors and 90 days for others after receipt and acceptance of materials at BHEL Stores or receipt of site acknowledgment in case of direct to site items of satisfactory receipt of materials at site. Where required by the purchase, the successful tenderer must send the operation and maintenance manuals, test certificates, drawings, etc., as called for, for the materials ordered. These should be sent immediately after despatch of the materials and a statement to that effect should be made in the invoice. Failure to comply with this provision will result in delay in payment of the bills. Goods despatched either by V.P.P. or by the documents presented through bank will not be accepted unless agreed to by the Purchaser.
- The transporter's copy of Excise Invoice should accompany the material. The Original Invoice alongwith other documents shall be (a) routed through bank or (b) directly sent to us as called for in the contract. One set of the Advance copies of the above documents shall be sent to Manager / Finance (Stores Bill section), BHEL, BAP, RANIPET - 6 and one set to Dy. Manager / Purchase BHEL, BAP, RANIPET - 6.
5. **Liquidated Damages :** It is clearly understood among the parties to the contract that "Time is the essence of the contract". Therefore, the delivery of the goods specified in the purchase order should be made within the time limit prescribed. Where the seller supplies or despatches the goods, beyond the delivery period specified, the Purchaser will have no obligation to accept the goods. If accepted, liquidated damages at the rate of 1/2% of the value of goods delayed for each week of delay or part thereof will be levied without prejudice to any other relief or compensation due to the purchaser under any other condition of this contract.
6. **Risk Purchase :** Alternatively, the purchaser at his option will be entitled the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the time stipulated as aforesaid or if the same were not available, the best and the nearest available substitute therefor. The supplier shall be liable for any loss which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rate mentioned in Clause 6 above.
7. **Preferential Delivery :** It should be noted that if a contract is placed on higher tenderer as a result of this invitation to tender in preference to the lowest acceptable offer in consideration to the earlier delivery, the seller will be liable to pay to the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R. destination including all elements of freights, sales tax, duties and other incidentals in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and incorporated in the contract.
8. **MODVAT CREDIT :** If any Excise duty is payable, the chapter 17 - head reference and the rate of duty

should be quoted. If the tenderer is availing MODVAT credit for the input material, the effect of proforma credit it should be passed on the purchaser. Tender under "MODVAT" shall be proforma.

General : a) The Purchaser reserves the right to split up the tender and place for individual items with different tenderers and also increase the quantity.

## TERMS AND CONDITIONS FOR FOREIGN OFFERS

**Offer :** Offer in ENGLISH LANGUAGE AND IN TRIPLICATE IN A SEALED COVER superscribing the enquiry number and due date shall be submitted addressed to : THE DY. MANAGER / PURCHASE, BHARAT HEAVY ELECTRICALS LIMITED, BOILER AUXILIARIES PLANT, INDIRA GANDHI INDUSTRIAL COMPLEX, RANIPET - 632 406, TAMIL NADU, INDIA.

Offers should be firm for net FOB / FCA nearest Sea / air port price and C & F Chennai Port Price indicating the shipping specifications and the earliest delivery in the respect of others from overseas suppliers.

### Documents :

- (i) Offers should be accompanied by detailed technical literature, catalogue and detailed dimensional drawing in ENGLISH and in TRIPLICATE, or otherwise the offers will not be considered.
- (ii) In case overseas suppliers route their accredited selling agents, a letter of authority should be furnished mentioning the name and address of their selling agents, who are authorised to bid, negotiate and conclude a contract on their behalf.

**Agency Commission :** In respect of offers from overseas suppliers, agency commission, if any, payable to their agents in India shall invariably be shown separately in the proforma invoice and this will be paid by us in India, in Indian Rupees, on satisfactory completion of the contract.

**Spare parts :** The tenderer should quote separately for spares that are required for two years trouble free operation. The spares offer should accompany the offer of main equipment, otherwise the quotation will be overlooked.

**Validity :** The offers for main equipment and spares shall be kept open for acceptance for 120 days (one hundred and twenty days) for the date of opening of the tender.

**Test Certificates, Operating and Maintenance Manuals :** The tenderer shall clearly mention in their offer that Test Certificates and Operating and Manuals, etc., as called for in technical specification, in the required number of copies will be provided at no extra cost. If any amount is payable as extra, the same shall be indicated separately in the offer.

**Terms and payment :** In the event of an order the purchaser will arrange for an unconfirmed irrevocable letter of credit against presentation of documents. Under, no circumstances confirmed irrevocable letter of credit will be established by the purchaser.

### General :

- (i) Preference will be given to suitable indigenous or ex-stock imported offers, failing which imported offers from incoming consignment against the indigenous supplies "Stock and sale Licence" will be accepted, if Stock and sale licence is not available with the indigenous suppliers, the same shall be indicated in their offer.
- (ii) The offer should reach us before the time of opening of tenders. The offer will be opened at 14.30 hours on the due date in the presence of the tenderers who may like to be present.
- (iii) **BANK GUARANTEE (if applicable) :** The supplier in the event of an order, should furnish a Bank Guarantee from an approved Bank at no extra cost in a proforma which will be supplied to the supplier, along with the order, for an amount equivalent to 10% of the value of the contract. The Bank Guarantee should remain in full force and effect during the period that would be taken of successful completion of the contract and shall continue to be enforceable till 12 months from the date of receipt of receipt of consignment at purchaser's site or 18 months from the date of last shipment at the port of Delivery, whichever is earlier.
- (iv) **INCOTERMS :** The definition for terms shall be as per Incoterms 2000
- (v) **PLEASE QUOTE YOUR RATE FOR ALL THE FOLLOWING CONDITIONS.**
  - (a) FOB on at sight L.C.
  - (b) On C & F Chennai Port India with at sight L.C.
  - (c) Rate on credit basis with rate of interest and period of credit.
  - (d) Rates with suppliers credit.

#### Payment Mechanism at BHEL, Ranipet

(Effective for all tenders issued by BHEL Ranipet from 01 July 2011 onwards unless otherwise notified of change/s in writing given by an authorized official of BHEL, Ranipet)

BHEL, Ranipet's payment mechanism will be as follows: (All Bidders are requested to read this carefully and take note of it before submitting their offer)

All bills of Suppliers processed for payment by BHEL, Ranipet shall pass through the following mile stones:

(1) Receipt of materials at BHEL, Ranipet Stores (evidenced by the Day-Book Number and Date generated at BHEL Stores, Ranipet) or Receipt of materials at Project Site / Destination specified in the Purchase Order (as evidenced by the acknowledgement given by the Consignee).

(2) Acceptance of the supplied materials at BHEL Stores, Ranipet. (Proof of evidence: Stores Receipt voucher - Short form "SRV", raised by BHEL Stores, Ranipet referenced by the SRV Number and Date)

(3) Receipt and Registration of the Bills / Invoices of the Supplier at BHEL, Ranipet Accounts Department. (evidenced by the ABS Number and Date)

(4) Receipt of clarifications, if any that may be required by BHEL, Ranipet Accounts or Purchase Department, from the Supplier. (As evidenced by the IOM Inward Date)

(5) Bill processing and passing.

(6) Payment release.

All these events are transparently available in the SCM web-site of BHEL, Ranipet, {<http://bapscm.bhelrpt.co.in/purc>} which can be viewed by all registered supplier with a password. Allowed Time frames:

A] From DB to SRV: 10 Days

B] From SRV to ABS: 15 Days

C] From ABS to Bill Pass: 07 Days (if Stage 4 above is not applicable)

OR

From IOM to Bill Pass: 07 Days (if Stage 4 above is applicable)

D] From Bill Pass to Payment Release: As per payment terms of the Purchase order.

All Suppliers payment/s would be released based on seniority of receipt of the processed bills at the payment section of BHEL, Ranipet Accounts Department.

The seniority would be based on the sequence of milestone events listed above.

In the sequence of the bill processing the preceding mile-stone seniority will be void, if the subsequent event occurs beyond the permitted time frame between two successive events.

Thus for example:

Start seniority would be with the DB date.

If the SRV date is greater than 10 days of the DB date, then the seniority of the DB date would be replaced by the SRV date.

If the ABS date is greater than 15 days of the SRV date, then the seniority would be reckoned by the ABS date.

If the Bill pass date is greater than 07 days of the ABS date then the seniority would be the date of inward receipt of the IOM.

The logics of these sequence is that SRV, ABS, IOM inward entry are dependent entirely on submission of correct documentation by Suppliers, as called for in the Purchase Order. If the documents are correctly submitted each of the milestone listed above will occur within BHEL, Ranipet within the timelines specified above.

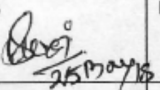
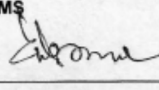
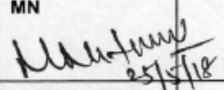
Hence, in their own interest all Suppliers are requested to take note of this process and comply with the same.

Caution: Suppliers' payments would get delayed / affected if they fail to adhere to the submission of the documents specified in the Purchase Order / Contract, since the listed milestone events occurrence are contingent upon the availability of the requisite documents.

|                                                                                   |                                                                           |                   |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------|
|  | <b>TECHNICAL SPECIFICATION FOR<br/>BUTTERFLY VALVES &amp; CHECK VALVE</b> | SPEC.NO.ROS: 6214 |
|                                                                                   |                                                                           | Rev. : 00         |

**BHARAT HEAVY ELECTRICALS LIMITED,  
RANIPET- 632 406.**

**TECHNICAL SPECIFICATION  
FOR  
BUTTERFLY VALVES & CHECK VALVES**

|             |          |                                                                                                        |                                                                                            |                                                                                                       |             |
|-------------|----------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------|
|             |          |                                                                                                        |                                                                                            |                                                                                                       |             |
|             |          |                                                                                                        |                                                                                            |                                                                                                       |             |
|             |          |                                                                                                        |                                                                                            |                                                                                                       |             |
|             |          |                                                                                                        |                                                                                            |                                                                                                       |             |
|             |          |                                                                                                        |                                                                                            |                                                                                                       |             |
| 00          | 25.05.18 | SS<br><br>25 May 18 | KMS<br> | MN<br><br>25/5/18 | Fresh issue |
| Rev.<br>No. | Date     | Prepared                                                                                               | Checked                                                                                    | Approved                                                                                              | Remarks     |

|                                                                                   |                                                                           |                   |
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|  | <b>TECHNICAL SPECIFICATION FOR<br/>BUTTERFLY VALVES &amp; CHECK VALVE</b> | SPEC.NO.ROS: 6214 |
|                                                                                   |                                                                           | Rev. : 00         |

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|                                                                                   |                                                                           | Rev. : 00         |

## 1 EQUIPMENT SPECIFICATION

### 1.1 GENERAL

- a. Equipment : Valve
- b. Application : For use in water treatment plant
- c. Surrounding : Dusty, humid atmosphere near Thermal Power plant
- d. Installation : Indoor (or) outdoor
- e. Ambient Temperature: 45 Deg. C Max & 15 Deg. C Minimum
- f. Duty : Tight shut off/Isolation/Regulation
- g. Operation : Continuous

### 1.2 DESIGN PARAMETER

- a. Fluid details
  - Medium handled : Sea water
  - pH : 6 to 9
  - TDS ppm : 35000 - 40000
  - Chloride ppm : 13000 - 22000
  - Specific gravity : 1.03
  - Temperature Deg C : 20 to 50
- b. Design Details
  - Type of valve : Bill of quantities given in Annexure-1 table B&C
  - Valve pressure rating : PN 10  
(For flanged valves)
  - Flange standard : ANSI B 16.5 & AWWA-C-207(steel flanges),BS - EN -1092
  - Flange Drilling Standard : ANSI B16.5 Class 150
- c. Material of construction : As per cl. no. 6 Table A
- d. **Bill of quantity** : **Main supply as per Annexure-1 Table-B**  
**Mandatory spare supply: Annexure-1 Table- C**
- e. Actuator and accessories : As per the enclosed spec. no. ROS: 4205.

#### Note.

1. \* Please refer material of construction given in the cl. no. 6 Table A (Material of Construction of Valves) against respective MOC code.
2. Please refer to enclosed Spec. No. ROS: 4205 for electrical & pneumatic actuator details.

|                                                                                   |                                                                           |                   |
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|  | <b>TECHNICAL SPECIFICATION FOR<br/>BUTTERFLY VALVES &amp; CHECK VALVE</b> | SPEC.NO.ROS: 6214 |
|                                                                                   |                                                                           | Rev. : 00         |

## 2 GENERAL DESIGN REQUIREMENTS

- 2.1 Only latest Revision of standards shall be used.
- 2.2 All the equipment shall be of proven design for the duty conditions and the contractor or manufacturer shall have sufficient experience in using the above equipment in water treatment application in the plants supplied earlier by them.
- 2.3 **Painting** - All the valves with actuators, strainers, resin traps etc. shall be provided with external painting as per painting specification given in Annexure-A. No paint or filter shall be applied until all repairs, hydrostatic tests and final shop inspections are completed, but shall be applied prior to shipment if during transport, unloading/unpacking or erection at site any part of the painted surface gets damaged, the same shall be made good by the contractor by repainting to the satisfaction of the project manager.
- 2.4 All valves shall be suitable for service conditions i.e. flow, temperature and pressure under which they are required. All the valves shall be of standard pressure rating of the relevant design standard. Nonstandard pressure rating shall not be accepted.
- 2.5 **Type of Actuators** shall be as defined in relevant tender Drawings. All the actuators of the valves shall be designed to handle the maximum expected pressure differential across the valves and to overcome friction forces including that t bearing surfaces and unbalance forces due to the flow through valve.
- 2.6 The valves as well as all accessories shall be designed for easy disassembly and maintenance.
- 2.7 All rising stem valves shall be provided with **back seat** to permit repacking (of glands) with valves in operation. All valves shall preferably be of outside screw and yoke type.
- 2.8 All valves shall be closed by rotating the hand wheel in the clockwise direction when looking at the face of the hand wheel. Suitable gearing arrangement shall be provided wherever input torque at hand wheel rim exceeds 25 kgf or provision of gear is standard practice of the valve manufacturer.
- 2.9 All valves shall have indicators or direction clearly marked on the hand-wheel so that the valves opening/closing can be readily determined.
- 2.10 Special attention shall be given to operating mechanism for large size valves with a view to obtaining quick and easy operation ensuring that a minimum of maintenance is required.

|                                                                                   |                                                                           |                   |
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|                                                                                   |                                                                           | Rev. : 00         |

2.11 The actuator-operated valves shall be designed on the basis of the following:

- a) The internal parts shall be suitable to support the pressure caused by the actuators;
- b) The valve-actuator unit shall be suitably stiff so as not to cause vibrations, misalignments, etc.
- c) All actuator-operated valves shall be provided with hand operated gearing mechanism also.
- d) All actuators operated valves shall open/ close fully within time required by the process but not later than 60 seconds after actuators starts.

2.12 Valves coming under the purview of IBR shall meet IBR requirements.

2.13 All valves shall be provided with embossed **nameplate** giving details such as tag number, type, size etc.

2.14 Mandatory spares valves: One no of each size of valve shall be supplied as mandatory spare. List of Valves furnished in Annexure-1 Table C.

2.15 All valves except those with rising stems shall be provided with continuous **mechanical position indicators**; rising stem valves shall have only visual indication through plastic/metallic stem cover for sizes above 50mm nominal bore.

**Note.** In case of any contradiction between different chapters / sections / annexures of the technical specification, bidder may bring the same to the purchaser's notice prior to bid submission in the form of pre bid queries and get it clarified from the purchaser. Otherwise, the most stringent specification shall be applicable in case of contradiction as decided by the purchaser.

### 3 TECHNICAL REQUIREMENT FOR BUTTERFLY VALVES

3.1 The valve rating of butterfly valves shall be selected based on the for the design pressure/temperature.

3.2 The design standard of butterfly valves shall conform to latest revision of AWWA C –504 or BS: EN: 593 or equivalent Standard of required class/rating.

3.3 Proof of Design (P.O.D.) test certificates shall be furnished by the Bidder for all applicable size-ranges and classes of Butterfly valves supplied by them. In the absence of certificates, actual P.O.D. test shall be conducted by the bidder in the presence of Employer's representative. All valves that are designed and manufactured as per AWWA-C-504 shall be governed by the relevant clauses of P.O.D. test in AWWA-C-504. For Butterfly valves designed and manufactured to EN-593 or equivalent, the P.O.D test methods and procedures shall generally follow the guidelines of AWWA-C-504 in all respect except that

|                                                                                   |                                                                           |                   |
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|                                                                                   |                                                                           | Rev. : 00         |

Body & seat hydro test and disc-strength test shall be conducted at the pressures specified in EN-593 or the applicable code. Actuators shall also meet requirement of P.O.D. test of AWWA-C-504.

- 3.4 The valves shall be suitable for installation in any position (horizontal/vertical etc.) and shall be generally of double-flanged construction. However, for sizes 600NB and below the valves of wafer construction are also acceptable.
- 3.5 The Geometry, overall dimensions, laying length, body shell thickness, shaft diameter and shaft torque value shall be as per design standard adopted and of applicable design class. For Valves of sizes not covered in AWWA C-504 (which are designed as per AWWA C-504), the same shall be extrapolated. For valves designed as per AWWA C-504, valve flanges shall conform to ANSI B16.1 Class 125 for Cast Iron Valves and AWWA C 207 Class D for fabricated type. The counter flanges shall conform to AWWA C-207 Class D. For Valves designed as per BS: EN: 593 the flanges shall conform to relevant pressure class/rating.
- 3.6 For all types of valves, the design with shaft eccentric to the disc is preferred. The shaft shall be solid type and shall pivot on bushings. Bushings/sleeve type bearings shall be contained in the hub of valve body. The bearing shall be self-lubricated type with low coefficient of friction and should not have any harmful effect on fluid handled and on valve components.
- 3.7 All the butterfly valves shall be provided with Hand wheel or lever as per the requirements.
- 3.8 For larger sizes i.e. 150 NB and above hand wheel shall be provided. For lever/wrench operated valves, means shall be provided for positively holding the disc in not less than three intermediate positions.
- 3.9 Valves shall be provided with reduction gear unit for valves of size 250 NB and above. Valve provided with motorized or pneumatic actuator shall also be provided with a hand wheel & Gear reduction unit for manual operation. Manual operation of valve shall be through gear arrangement having totally enclosed gearing with hand wheel diameter and gear ratio designed to meet the required operating torque It shall be designed to hold the valve disc in intermediate position between full open and full closed position without creeping or fluttering. All the valves shall be provided with adjustable stops shall be provided to prevent over travel in either direction.
- 3.10 The seals, both on the body (sleeve) and on the disc shall be of the material specified. Necessary shaft seal shall be provided and adequately designed to ensure no leakage across the seal. This seal shall be designed so that they will allow

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replacement without removal of the valve shaft. The sealing ring on the disk shall be continuous type and easily replaceable.

- 3.11 The design of the shaft shall be such that it will safely sustain maximum differential pressure across the closed valve. The shaft and any key (taper pin etc.) for transmitting the torque between shaft and disc shall be capable of withstanding the maximum torque required to operate the valve. However, the shaft diameter shall not be less than the minimum shaft diameter specified in relevant code. Necessary Torque Calculation and the torque class selected on the basis of the same shall be furnished to the Employer for information if required.
- 3.12 The disc shall rotate from the full open to the tight shut position. The disc shall be contoured to ensure the least possible resistance to flow and shall be suitable for throttling operation. While the disc is in the throttled position, valve shall not create any noise or vibration.
- 3.13 The operating mechanism shall be mounted directly on or supported from the valve body
- 3.14 All valves shall be complete with Position indicator (located in a visible place) arrow indicating the flow direction and adjustable mechanical stop limiting devices to prevent over-travel of valve disc in open/close position.
- 3.15 Hand operated valves shall have local hand controls to close the valve with clockwise rotation & to provide an easy maneuver under most severe conditions. The hand controls shall be provided with locking systems suitable to avoid the disc assuming a non-desirable position during the operation.
- 3.16 Hand wheel shall be with arms and rims of adequate strength. The hand wheel of diameters 300mm or less shall be provided with handles for ease of operation. The pulling force required on the hand wheel rim shall not exceed 25 Kgf when operating the valve under full flow and operating pressure.
- 3.17 Valves-350Nb and above shall have pressure equalizing bypass valves, wherever system parameters warrant the same.
- 3.18 Limit and torque switches (if applicable) shall be enclosed in water tight enclosures along with suitable space heaters for valves, which may be either for On-Off operation or inching operation with position transmitter.

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#### 4 ELECTRICAL & PNEUMATIC ACTUATOR

The technical requirement for Electrical & Pneumatic Actuator is specified in the enclosed Electrical & Pneumatic Actuator Specification no. **ROS 4205**

#### 5 INSPECTION

Inspection at the manufacturer's works will be carried out by BHEL / BHEL's customer / BHEL authorized agency as per the approved quality plan prior to dispatch.

#### 6 MATERIAL OF CONSTRUCTION

| Table - A |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-----------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MOC Code  | Service                | Material of Construction of Valves                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| C#1       | Low Pressure Sea Water | <b>Butterfly Valves</b> <ol style="list-style-type: none"> <li>Body &amp; Disc shall be Stainless steel of ASTM A 890 Grade J93404 OR Austenitic Ductile Iron of ASTM-A 439 D2 (D2 Ni)</li> <li>Shaft shall be of Stainless steel to ASTM. A 276 Gr S31803 / ASTM. A 296 Gr/ Duplex SS/Ferralium 255.</li> <li>Seat shall be ASTM A 890 J93370 or equivalent</li> <li>Seals shall be Nitrile rubber, EPDM (Ethylene propylene rubber), Hypalon</li> </ol>                                                                                                           |
| C#2       | Low Pressure Sea Water | <b>Check Valves</b> <ol style="list-style-type: none"> <li>Body &amp; Cover, Hinge Disk/Door shall be ASTM A 890 Grade J93404 or Austenitic Ductile Iron of ASTM-A 439 D2 (D2 Ni)</li> <li>Hinge Pin and Door/Disc Pin shall be of Stainless steel to ASTM. A 276 Gr S31803/ ASTM. A 296 Gr/ Duplex SS/Ferralium 255</li> <li>Bearing bushes, Disc facing ring and Body Seat rings shall be ASTM. A 276 Gr S31803 / ASTM. A 296 Gr/ Duplex SS/Ferralium 255</li> <li>Material of construction of spring in dual type valve shall be of INCONEL or better</li> </ol> |

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## 7 **PAINTING**

Painting shall be as per painting specification enclosed as Annexure-A.

## 8 **DOCUMENTATION**

### 8.1 **GENERAL**

The documentation during bid and post order stage shall meet the following requirements.

1. All documents and drawing shall be submitted in English
2. Hard copies of all documents and drawings during bid stage to be submitted in duplicate.
3. Hard copies of all documents for approval shall be submitted in triplicate.
4. Hard copies of all final documents, drawings, Erection and O& M manual etc., shall be submitted in bound folder in 6 copies.
5. Soft copies of all final documents in MS word / MS office in the form of CD –1 set
6. Soft copies of all final calculations in MS excel / MS office in the form of CD –1set
7. Soft copies of all final drawings in Auto Cad, latest version in the form of CD –1set

### 8.2 **DOCUMENTS ALONG WITH BID:**

The following drawings / documents are to be enclosed along with the bid for scrutiny.

- a. Duly filled up data sheet as per **Annexure – 2**
- b. Filled up Sub-Vendor Questionnaire as per Annexure – C for BHEL's customer approval
- c. Detailed assembly drawing with overall dimensions
- d. Valve cross sectional drawings with Bill of Material including the material specifications.
- e. List of applicable standards for shop test
- f. Reference list for the offered model
- g. Typical Quality plan for all the equipment supplied
- h. Valves Catalogues
- i. Recommended Spares list for 3 years O&M along with item wise Price
- j. Valve Characteristic curves
- k. Any deviation shall be specifically mentioned in the enclosed deviation format **Annexure – 3**
- l. Any other documents mentioned elsewhere in the specification

|                                                                                   |                                                                           |                   |
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In case of any deviation, the Bidder shall indicate the deviation, clause by clause in the deviation format attached in Annexure - 2. If there is no deviation, "NIL" Deviation statement shall be furnished. In the absence of the non-attachment of this Annexure-2, it will be construed that the bid confirms strictly to the specification.

**Note:** Bidder to note that failure to submit the above document / details along with the offer will be considered as bid is incomplete and offers are liable for rejection.

### **8.3 DOCUMENTS / SERVICE AFTER ORDER (Along with soft copies of drawings, data sheets, Erection and O&M manuals)**

**A.** The following documents are to be submitted for BHEL's approval

- Duly filled up data sheet in the enclosed format (**Annexure – 2**)
- Detailed assembly drawing with overall dimensions
- Valve cross sectional drawings with Bill of Material including the material specifications
- Quality plan

**B.** The following are to be submitted to BHEL's review and acceptance

- Material test certificate
- Hydraulic & Leak test certificates
- Performance guarantee certificate
- Erection manual
- O&M manuals

### **PAINTING SPECIFICATION**

Painting surface shall be cleaned both internally and externally thoroughly by blast cleaning or power tool cleaning method, where blast cleaning is not feasible. In case of oil piping, cleaning will have to be done by pickling. **No painting is required on stainless steel pipe or stainless steel surfaces.** However, necessary colour banding for identification as per colour code shall be done.

#### **A) SURFACE PREPARATION AND PRIMING**

All surfaces to be painted shall be clean, dry and free from contamination. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning. External surfaces then are to be blast cleaned by abrasives to a minimum of SA 2½ finish of SIS-05-5900 (Swiss International standard) (ISO-8501-1:1988). If Oxidation has occurred between blasting and application of primer, the surface should be re-blasted to the specified visual standard i.e. to near white metal. The primer coat shall be applied immediately after blast cleaning by Airless spray technique.

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## B) PAINTING

The coating material and thickness for primer, intermediate, finish and top-finish coats are given as below:

- |                          |                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                         |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (i) Primer Coat :        | Self-curing Inorganic Zinc Silicate (Level of zinc dust by weight present in the dried film shall be equal to or greater than 85%). Inorganic zinc silicate shall comply with SSPC SP20 Level-I Zinc content and Zinc purity as per ASTM D520 Type-II). | - 75 Micron (DFT) (minimum) to be applied by Airless spray                                                                                                                                                                                                                                                              |
| (ii) Intermediate Coat : | Polyamide cured pigmented Titanium Dioxide (TiO <sub>2</sub> ) or Micaceous Iron Oxide (MIO) Epoxy based paint (solid by volume minimum 60%). [This coat shall be applied after an interval of minimum 24 hours after application of Prime Coat]        | - 100 Micron (DFT) (minimum) to be applied by Airless spray technique.                                                                                                                                                                                                                                                  |
| (iii) Finish Coat :      | Polyamide cured colour pigmented Epoxy based Paint (Solid by volume minimum 60%). This Coat shall be applied after an interval of Minimum 16 hours from the time of application of intermediate coat.                                                   | <p>- 75 Micron (DFT) (minimum) to be applied before erection by Airless spray technique or after erection by brush and/or spray.</p> <p>Colour and shade of the coat shall be approved by the Employer. The Finish coat thickness of 75 micron can be built up either in single application or in two applications.</p> |

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|                       |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                        |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (iv) Top-finish Coat: | Top-finish coat or Final finish coat of Polyurethane based colour pigmented Paint (Solid by volume minimum 40%). This coat shall be applied after an interval of minimum 24 hours from time of application of Finish coat but shall be within 4 days maximum. | - 50Micron (DFT) (minimum) to be applied by Airless spray or conventional spray technique and on very rare occasions by brush after erection.<br><br>The colour & shade of the coat shall be approved by the employer. |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Total dry film thickness of the external painting thus shall not be less than 300 micron.

#### C) OTHER REQUIREMENTS

- Paint manufacturer's instructions shall be followed in method of application, handling, drying time etc.
- The colour of the finish paint shall be as per approved colour coding scheme.
- If finish paint was applied in shop, one coat of finish paint shall be applied at site.
- Protection of other surfaces adjacent to the surface being painted is the responsibility of the Contractor.
- The dry film thickness of the finish paint shall not be less than 300 micron.
- All painting materials such as paints, varnishes, primer, solvents, thinners shall be supplied by the Contractor. All the services, tools etc. required for preparation / cleaning and painting shall be provided by the Contractor. The Contractor shall be required to estimate the quantity of painting material required.

#### D) APPLICATION

The paint manufacturer's instructions covering shelf-life, pot life, storing, safety, thinning, mixing ratio, method of application, handling, and drying and curing time shall be strictly followed and considered as a part of this specification. Flash point for all primers, paints, etc. shall be taken into consideration.

Paint shall not be applied to damp surfaces or in rainy weather or when temperature is below 13°C or above 36°C, except when specifically permitted to do so as per manufacturer's instructions. In all cases, manufacturer's recommended temperature limit, relative humidity for applicable shall be followed.

|                                                                                   |                                                                           |                   |
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The colour of each coat shall generally contrast with the previous coats' colour to avoid skip and holidays.

Apart from surface preparation of the piping etc. attention should be paid to the details, particularly the following:

- a. Sharp edges that may have a deleterious effects on coatings should be removed.
- b. Burrs caused by removal of temporary lugs etc. should be ground flat.
- c. Welds should be dressed and weld spatter removed by grinding.
- d. Nuts and bolts should be properly treated.
- e. Fasteners, such as pipe hangers, clamp etc., should be treated before being fixed to the main structure.

#### **E) SURFACES NOT TO BE PAINTED**

- a. Surfaces of insulation need not be painted.
- b. Surfaces of Stainless steel, nickel, copper, brass, Monel, aluminium, Hastelloy lead, etc. need not painted. However, **Galvanized Steel pipe external surface shall be painted as mentioned** above.
- c. Valve stem, pump shafts, gauges need not painted.
- d. Bearing and control surfaces, lined or clad surfaces need not painted.

#### **F) INSPECTION AND TESTING**

All painted surfaces shall be visually checked for uniformity. The dry film thickness of coatings of paint shall be measured.

#### **G) COLOUR CODE FOR IDENTIFICATION**

The pipes shall be colour painted/ banded for identification as per the colour coding scheme of Employer. These sheets shall be furnished during detail engineering stage to the bidder and shall be generally as per IS-9404.

**H)** Surfaces of insulation, Stainless steel, nickel, copper, brass, Gun Metal, monel, aluminium, Hastelloy, lead, Plastic materials such as HDPE, CPVC, GRP Valve stem, pump shafts, gauges, Bearing and control surfaces, lined or clad surfaces etc. need not painted. However, Galvanized Steel pipe external surface shall be painted as per the above clause.

|                                                                                   |                                                                           |                   |
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# **ANNEXURE-1**

**MAIN SUPPLY-TABLE-B (Valve Rating 150 PSI)**

| Sl.No | Type of Valve     | Type of operation                | Size DN | MOC Clause | End connection | MOC - Body | MOC - Disc | MOC-Shaft | MOC-Seat | QTY |
|-------|-------------------|----------------------------------|---------|------------|----------------|------------|------------|-----------|----------|-----|
| 1     | Butterfly Valve   | Pneumatic-On/Off                 | 100     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 41  |
| 2     | Butterfly Valve   | Manual                           | 100     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 4   |
| 3     | Butterfly Valve   | Manual                           | 150     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 5   |
| 4     | Butterfly Valve   | Pneumatic-On/Off                 | 80      | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 11  |
| 5     | Butterfly Valve   | Pneumatic-On/Off                 | 150     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 2   |
| 6     | Butterfly Valve   | Manual                           | 200     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 4   |
| 7     | Butterfly Valve   | Manual                           | 250     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 14  |
| 8     | Butterfly Valve   | Pneumatic Flow Control Valve     | 250     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 10  |
| 9     | Butterfly Valve   | Pneumatic-On/Off                 | 250     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 24  |
| 10    | Butterfly Valve   | Pneumatic-On/Off                 | 300     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 21  |
| 11    | Butterfly Valve   | Manual                           | 300     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 20  |
| 12    | Butterfly Valve   | Manual                           | 350     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 2   |
| 13    | Butterfly Valve   | Manual Valve with Limit Switches | 400     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 6   |
| 14    | Butterfly Valve   | Manual Valve with Limit Switches | 300     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 2   |
| 15    | Butterfly Valve   | Pneumatic-On/Off                 | 350     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 10  |
| 16    | Swing Check Valve | Self-Operated                    | 150     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 2   |
| 17    | Swing Check Valve | Self-Operated                    | 300     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 2   |

|                                                                                   |                                                                           |                   |
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|    |                   |               |     |     |       |        |        |        |      |    |
|----|-------------------|---------------|-----|-----|-------|--------|--------|--------|------|----|
| 18 | Swing Check Valve | Self-Operated | 100 | C#2 | Wafer | Duplex | Duplex | Duplex | EPDM | 20 |
| 19 | Swing Check Valve | Self-Operated | 350 | C#2 | Wafer | Duplex | Duplex | Duplex | EPDM | 1  |
| 20 | Swing Check Valve | Self-Operated | 400 | C#2 | Wafer | Duplex | Duplex | Duplex | EPDM | 8  |
| 21 | Butterfly Valve   | Manual        | 400 | C#1 | Wafer | Duplex | Duplex | Duplex | EPDM | 9  |
| 22 | Butterfly Valve   | Motorized     | 400 | C#1 | Wafer | Duplex | Duplex | Duplex | EPDM | 4  |

|                                                                                   |                                                                           |                   |
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**Mandatory Spare: Table-C (Valve Rating 150 PSI)**

| SI No. | Type of Valve                                                             | Type of operation                | Size DN | MOC Clause | End connection | MOC - Body | MOC - Disc | MOC-Shaft | MOC-Seat | QTY |
|--------|---------------------------------------------------------------------------|----------------------------------|---------|------------|----------------|------------|------------|-----------|----------|-----|
| 1      | Butterfly Valve                                                           | Pneumatic-On/Off                 | 100     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 2      | Butterfly Valve                                                           | Manual                           | 100     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 3      | Butterfly Valve                                                           | Pneumatic-On/Off                 | 80      | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 4      | Butterfly Valve                                                           | Pneumatic-On/Off                 | 150     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 5      | Butterfly Valve                                                           | Manual                           | 150     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 6      | Butterfly Valve                                                           | Manual                           | 200     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 7      | Butterfly Valve                                                           | Pneumatic-On/Off                 | 250     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 8      | Butterfly Valve                                                           | Manual                           | 250     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 9      | Butterfly Valve                                                           | Pneumatic-On/Off                 | 300     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 10     | Butterfly Valve                                                           | Manual Valve with Limit Switches | 300     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 11     | Butterfly Valve                                                           | Manual                           | 350     | C#3        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 12     | Swing Check Valve                                                         | Self-Operated                    | 100     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 13     | Swing Check Valve                                                         | Self-Operated                    | 150     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 14     | Swing Check Valve                                                         | Self-Operated                    | 300     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 15     | Swing Check Valve                                                         | Self-Operated                    | 350     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 16     | Swing Check Valve                                                         | Self-Operated                    | 400     | C#2        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 17     | Smart Positioner Unit For Flow Control Valve of Table-A SI No. 8 As Spare |                                  |         |            |                |            |            |           |          | 1   |
| 18     | Butterfly Valve                                                           | Pneumatic-On/Off                 | 350     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |
| 19     | Butterfly Valve                                                           | Motorized                        | 400     | C#1        | Wafer          | Duplex     | Duplex     | Duplex    | EPDM     | 1   |

|                                                                                   |                                                                           |                                |
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**Annexure-2**

**DATA SHEET FOR MANUAL / PNEUMATIC OPERATED BUTTERFLY VALVE**

(To be submitted by the vendor for each size and type of valve)

BHEL ENQUIRY / P.O. Reference No. & Date :

Material Code No. :

| I    | TECHNICAL PARAMETER                                  | DATA / VALUE |
|------|------------------------------------------------------|--------------|
| a.   | Make                                                 |              |
| b.   | Model / Type                                         |              |
| c.   | Fluid details - Medium handled                       |              |
|      | - pH range                                           |              |
|      | - TDS / Chloride range      ppm                      | /            |
|      | - Temperature range      Deg.C                       |              |
| d.   | Design C <sub>v</sub> of the valve                   |              |
| e.   | Valve pressure rating                                |              |
| f.   | Pressure Drop for the specified minimum pipe ID with |              |
|      | i) a flow at 1 m/s velocity      Bar (g)             |              |
|      | ii) a flow at 2 m/s velocity      Bar (g)            |              |
| g.   | Design pressure      Bar (g)                         |              |
| h.   | Hydraulic test pressure                              |              |
|      | - Body      Bar (g)                                  |              |
|      | - Seat      Bar (g)                                  |              |
| i    | Max. Shut off pressure      Bar (g)                  |              |
| II   | CONSTRUCTION DETAILS                                 |              |
| a.   | Material of construction                             |              |
|      | - Body                                               |              |
|      | - Disc                                               |              |
|      | - Stem                                               |              |
|      | - Seat                                               |              |
|      | - Disc Screw                                         |              |
|      | - Bushing                                            |              |
|      | - Handle                                             |              |
|      | - Fasteners                                          |              |
| b.   | End Connection / Rating / Standard                   |              |
| c.   | Recommended minimum pipe ID      mm                  |              |
| III. | GENERAL                                              |              |
| a.   | Weight per valve including actuator if applicable*   |              |
| b.   | Applicable standards (Design / Testing)              | /            |
| c.   | Valve GA Drawing / cross Sectional Drg.              |              |

\*For pneumatic & motor operated valves, actuator weight shall be indicated separately

Date:

Signature of the Vendor with Seal

|                                                                                   |                                                                           |                   |
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**Annexure-3**

**TECHNICAL DEVIATIONS**

| Sl. No | SEC. | Clause No. | PAGE / No. | Specification | Statement of Deviations/variatioins | Reason for deviation | Cost of withdrawal |
|--------|------|------------|------------|---------------|-------------------------------------|----------------------|--------------------|
|        |      |            |            |               |                                     |                      |                    |
|        |      |            |            |               |                                     |                      |                    |
|        |      |            |            |               |                                     |                      |                    |
|        |      |            |            |               |                                     |                      |                    |
|        |      |            |            |               |                                     |                      |                    |
|        |      |            |            |               |                                     |                      |                    |

**Date:**

**Signature & Seal of the Bidder**



**SPECIFICATION FOR PNEUMATIC  
ACTUATOR**

**SPEC. NO.: ROS 4205  
REV. NO: 02**

**BHARAT HEAVY ELECTRICALS LIMITED,  
RANIPET- 632 406.**

**TECHNICAL SPECIFICATION**

**FOR**

**PNEUMATIC FLOW CONTROL**

**&**

**ON-OFF ACTUATOR**

**CONFIDENTIAL**  
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| Ref. | Revisions: | Prepared :                | Checked :                 | Approved:                 | Date :   |
|------|------------|---------------------------|---------------------------|---------------------------|----------|
|      | Rev 02     | AJV<br><i>[Signature]</i> | MKV<br><i>[Signature]</i> | VNS<br><i>[Signature]</i> | 25.05.18 |
|      | Rev 01     | AJV                       | MKV                       | VNS                       | 09.05.18 |
|      | Rev 00     | AJV                       | MKV                       | VNS                       | 20.11.17 |



## SPECIFICATION FOR PNEUMATIC ACTUATOR

SPEC. NO.: ROS 4205  
REV. NO: 02

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## SPECIFICATION FOR PNEUMATIC ACTUATOR

SPEC. NO.: ROS 4205  
REV. NO: 02

### 1. SCOPE

This specification is intended to cover the design, manufacture, assembly, testing at manufacturer's works/testing laboratories, supply & delivery, properly packed for pneumatic actuator complete with all fittings, accessories and auxiliary equipment for efficient and trouble-free operation.

The scope of supply shall include all required accessories and tubing for valves, actuator and accessories as a single complete assembly and not limited to accessories mentioned here.

### 2. PNEUMATIC ACTUATOR & ACCESSORIES FOR ON-OFF VALVE

|     |                                          |                                                                                                                                                                                                                                                                                             |
|-----|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) | Quantity                                 | 01 No. for each Pneumatic Operated Valve (POV)                                                                                                                                                                                                                                              |
| (b) | Type                                     | Pneumatic Rotary (Rack & Pinion) Double acting (Air to Open & Air to Close)                                                                                                                                                                                                                 |
| (c) | Pressure                                 | 4-7 Kg /sq. cm                                                                                                                                                                                                                                                                              |
| (d) | Air Connection                           | 1/4" NPT(F) copper tube                                                                                                                                                                                                                                                                     |
| (e) | Hand wheel for manual operation          | Required                                                                                                                                                                                                                                                                                    |
| (f) | State of driven equipment on air failure | Stay put                                                                                                                                                                                                                                                                                    |
| (g) | Torque capacity                          | Vendor to select to suit torque requirement of valve type, size & rating.                                                                                                                                                                                                                   |
| (h) | Limit Switch                             | One for Open & one for Close position for each POV with 2 NO+2NC potential free contacts in each limit switch. Contact rating shall be 5A, 240V AC, 0.5A, 220 V DC. Enclosure shall be weather proof IP 55. All NO contacts terminals shall be brought out in a nine pin plug in connector. |
| (i) | Quick Exhaust                            | 02 No. for each Pneumatic Operated Valve (POV)                                                                                                                                                                                                                                              |

### 3. PNEUMATIC ACTUATOR & ACCESSORIES FOR FLOW CONTROL VALVES

|      |                                 |                                                                                                                                                                                                                                                                                                                                                         |
|------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1. | Quantity                        | 01 No. for each Pneumatic Operated Valve (POV)                                                                                                                                                                                                                                                                                                          |
| 1.2. | Type                            | Pneumatic Rotary (Rack & Pinion) Double acting                                                                                                                                                                                                                                                                                                          |
| 1.3. | Air Connection                  | 1/4" NPT(F) copper/SS tube                                                                                                                                                                                                                                                                                                                              |
| 1.4. | Hand wheel for manual operation | Required                                                                                                                                                                                                                                                                                                                                                |
| 1.5. | Torque capacity                 | Vendor to select to suit torque requirement of valve type, size & rating.                                                                                                                                                                                                                                                                               |
| 1.6. | Positioner                      | Smart type with HART communication protocol, With regulating input as 2 wire 4-20 mA (24 V). Housed in cast aluminium casing (with polyurethane paint); IP65 degree of protection for enclosure. Material of accessories shall be SS. The allowable drift rate will be +2% of set point/ hour maximum. The positioner shall be mounted on the actuator. |
| 1.7. | Valve position transmitter      | Required with output indicating position of valve as 2 wire 4-20 mA (24 V).                                                                                                                                                                                                                                                                             |
| 1.8. | Air Filter Regulator            | Type: Manual Drain<br>Inlet : 4 - 7 Kg / sq. cm<br>Filtering particles: > 5 microns<br>Filter Element: Sintered bronze/Phosphor Bronze/Polypropylene<br>Output pressure: 0 - 7 Kg / sq. cm                                                                                                                                                              |



## SPECIFICATION FOR PNEUMATIC ACTUATOR

SPEC. NO.: ROS 4205

REV. NO: 02

|  |  |                                                                                                                                                                                                        |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | Output Gauge Range : 0-10 Kg/sq.cm<br>Output Pressure Gauge dial: min 40mm<br>Blow down valve: To be provided<br>Air connection Inlet : suitable end fittings to be provided for 1/4" SS/copper tube . |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4. LIMIT SWITCHES FOR MANUAL VALVES

Provide one for Open & one for Close position for each valve with 2 NO+2NC potential free contacts in each limit switch. Contact rating shall be 5A,240V AC , 0.5A, 220 V DC. Enclosure shall be weather proof IP 55. Both NO contacts of each limit switch terminals shall be brought out in a five pin plug in connector.

#### 5. DRAWINGS & DOCUMENTS TO BE SUBMITTED

##### 5.1. Along with offer

Datasheet and/or catalog with selected model number for

- (a) Pneumatic Actuator
- (b) Limit switch
- (c) Positioner and Position Transmitter
- (d) Air Filter Regulator

##### 5.2. Documentation after placing of Purchase Order

- (a) GA drawing of the complete valve-actuator-accessories arrangement
- (b) Datasheet & O&M manual of actuator with accessories
- (c) BOM of all fitments, accessories
- (d) Cable termination details
- (e) Quality assurance plan
- (f) Test certificates/test reports(Including Cv test report)
- (g) Any other relevant drawings, documents or data necessary for satisfactory installation, operation and maintenance

|                                                                                   |                                                                                                                                        |                    |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|  | <b>BHEL: BAP: RANIPET</b><br><b>Water Business</b><br><br><b>Pre-Qualification requirement for Butterfly Valves &amp; Check valves</b> | Ref: RWT80643:BFPQ |
|                                                                                   |                                                                                                                                        | Dt: 19 Jun18       |
|                                                                                   |                                                                                                                                        | Rev : 01           |

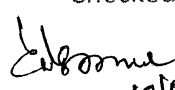
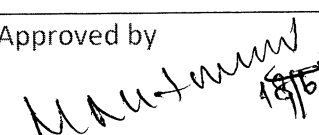
The Qualification requirements for Butterfly Valves and Check valves are detailed below and Bidders should meet the same. Offers of bidders who do not meet qualification requirement will not be considered.

1. Bidder should have designed manufactured & supplied Butterfly valves in at least two different plants.
2. Bidder should have supplied the valves to any of the power / industrial/ municipal applications.
3. The bidder should have supplied at least one number of valves of each type described in the table below & the valve should have been in operation for more than one year as on date of techno commercial bid opening. The bidder shall submit two performance certificate from two different end users out of which one shall be for Type 2 valve necessarily :

| Sl. No. | ITEM                                              | Valve Type 1                    | Valve Type 2                                        | Valve Type 3        |
|---------|---------------------------------------------------|---------------------------------|-----------------------------------------------------|---------------------|
| a.      | Type of Valve                                     | Manual Operated Butterfly Valve | Pneumatic/ Motorized Auto Operated Butterfly Valve. | Swing check valve   |
| b.      | Material of construction of the Valve Body & Disc | Duplex SS / SS316               | Duplex SS / SS316                                   | Duplex SS / SS316   |
| c.      | End Connection                                    | Wafer Type/ Flanged             | Wafer Type/ Flanged                                 | Wafer Type/ Flanged |
| d.      | Pressure Rating (min.)                            | PN 10                           | PN 10                                               | PN 10               |
| e.      | Size (min.)                                       | DN 250 and above                | DN250 and above                                     | DN250 and above     |

**General Conditions:**

1. Bidder shall furnish necessary documentary evidence in original / notarized (legible) copy as a proof of meeting the qualifying criteria for the review by BHEL. Acceptance of documentary evidence rests with BHEL.
2. Bidders who defaulted, in any of the previous tenders floated by BHEL are not permitted to respond. Such offers, if found later, will not be considered for evaluation.
3. After receipt of offers, during scrutiny, if any vendor found to have been banned by BHEL, then their offer will be summarily rejected at any stage.

|                                                                                                               |                                                                                                               |                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Prepared by<br><br>19/6/18 | Checked by<br><br>19/06/18 | Approved by<br><br>19/6/18 |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|

|                                                                                  |                                                                       |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|  | <b>CORPORATE QUALITY ASSURANCE</b><br><b>SUB-VENDOR QUESTIONNAIRE</b> |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|

|      |                                                                                                                                                                            |                                                                                                                                                   |  |  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| i.   | Item/Scope of Sub-contracting                                                                                                                                              |                                                                                                                                                   |  |  |
| ii.  | Address of the registered office                                                                                                                                           | Details of Contact Person<br>(Name, Designation, Mobile, Email)                                                                                   |  |  |
| iii. | Name and Address of the proposed Sub-vendor's works where item is being manufactured                                                                                       | Details of Contact Person:<br>(Name, Designation, Mobile, Email)                                                                                  |  |  |
| iv.  | Annual Production Capacity for proposed item/scope of sub-contracting                                                                                                      |                                                                                                                                                   |  |  |
| v.   | Annual production for last 3 years for proposed item/scope of sub-contracting                                                                                              |                                                                                                                                                   |  |  |
| vi.  | <b>Details of proposed works</b>                                                                                                                                           |                                                                                                                                                   |  |  |
| 1.   | Year of establishment of present works                                                                                                                                     |                                                                                                                                                   |  |  |
| 2.   | Year of commencement of manufacturing at above works                                                                                                                       |                                                                                                                                                   |  |  |
| 3.   | Details of change in Works address in past (if any)                                                                                                                        |                                                                                                                                                   |  |  |
| 4.   | Total Area                                                                                                                                                                 |                                                                                                                                                   |  |  |
|      | Covered Area                                                                                                                                                               |                                                                                                                                                   |  |  |
| 5.   | Factory Registration Certificate                                                                                                                                           | Details attached at Annexure – F2.1                                                                                                               |  |  |
| 6.   | Design/ Research & development set-up<br>(No. of manpower, their qualification, machines & tools employed etc.)                                                            | Applicable / Not applicable if manufacturing is as per Main Contractor/purchaser design<br>Details attached at Annexure – F2.2<br>(if applicable) |  |  |
| 7.   | Overall organization Chart with Manpower Details<br>(Design/Manufacturing/Quality etc)                                                                                     | Details attached at Annexure – F2.3                                                                                                               |  |  |
| 8.   | After sales service set up in India, in case of foreign sub-vendor<br>(Location, Contact Person, Contact details etc.)                                                     | Applicable / Not applicable<br>Details attached at Annexure – F2.4                                                                                |  |  |
| 9.   | Manufacturing process execution plan with flow chart indicating various stages of manufacturing from raw material to finished product including outsourced process, if any | Details attached at Annexure – F2.5                                                                                                               |  |  |

|                                                                                  |                                                                       |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|  | <b>CORPORATE QUALITY ASSURANCE</b><br><b>SUB-VENDOR QUESTIONNAIRE</b> |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------|

|       |                                                                                                                                                                                       |                  |                                                         |                                                                     |                   |                |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------|---------------------------------------------------------------------|-------------------|----------------|
| 10.   | Quality Control exercised during receipt of raw material/BOI, in-process , Final Testing, packing                                                                                     |                  |                                                         | Details attached at Annexure – F2.6                                 |                   |                |
| 11.   | Manufacturing facilities<br>(List of machines, special process facilities, material handling etc.)                                                                                    |                  |                                                         | Details attached at Annexure – F2.7                                 |                   |                |
| 12.   | Testing facilities<br>(List of testing equipment)                                                                                                                                     |                  |                                                         | Details attached at Annexure – F2.8                                 |                   |                |
| 13.   | If manufacturing process involves fabrication then-                                                                                                                                   |                  |                                                         | Applicable / Not applicable                                         |                   |                |
|       | List of qualified Welders                                                                                                                                                             |                  |                                                         | Details attached at Annexure – F2.9                                 |                   |                |
|       | List of qualified NDT personnel with area of specialization                                                                                                                           |                  |                                                         | (if applicable)                                                     |                   |                |
| 14.   | List of out-sourced manufacturing processes with Sub-Vendors' names & addresses                                                                                                       |                  |                                                         | Applicable / Not applicable                                         |                   |                |
|       |                                                                                                                                                                                       |                  |                                                         | Details attached at Annexure. –F2.10<br>(if applicable)             |                   |                |
| 15.   | Supply reference list including recent supplies                                                                                                                                       |                  |                                                         | Details attached at Annexure – F2.11<br>(as per format given below) |                   |                |
|       | Project/<br>package                                                                                                                                                                   | Customer<br>Name | Supplied Item (Type/Rating/Model<br>/Capacity/Size etc) | PO ref no/date                                                      | Supplied Quantity | Date of Supply |
| 16.   | Product satisfactory performance feedback<br>letter/certificates/End User Feedback                                                                                                    |                  |                                                         | Attached at annexure - F2.12                                        |                   |                |
| 17.   | Summary of Type Test Report (Type Test Details, Report No, Agency, Date of testing) for the proposed product<br>(similar or higher rating)<br>Note:- Reports need not to be submitted |                  |                                                         | Applicable / Not applicable                                         |                   |                |
|       |                                                                                                                                                                                       |                  |                                                         | Details attached at Annexure – F2.13<br>(if applicable)             |                   |                |
| 18.   | Statutory / mandatory certification for the proposed product                                                                                                                          |                  |                                                         | Applicable / Not applicable                                         |                   |                |
|       |                                                                                                                                                                                       |                  |                                                         | Details attached at Annexure – F2.14<br>(if applicable)             |                   |                |
| 19.   | Copy of ISO 9001 certificate<br>(if available)                                                                                                                                        |                  |                                                         | Attached at Annexure – F2.15                                        |                   |                |
| 20.   | Product technical catalogues for proposed item (if available)                                                                                                                         |                  |                                                         | Details attached at Annexure – F2.16                                |                   |                |
|       |                                                                                                                                                                                       |                  |                                                         |                                                                     |                   |                |
| Name: |                                                                                                                                                                                       |                  |                                                         | Desig:                                                              |                   |                |
|       |                                                                                                                                                                                       |                  |                                                         | Sign:                                                               |                   |                |
|       |                                                                                                                                                                                       |                  |                                                         | Date:                                                               |                   |                |

Company's Seal/Stamp:-