
 <b>BHEL</b> Tenders		Government eProcurement System			
Tender Details					
Date : 12-May-2022 05:32 PM					
 Print					
<b>Basic Details</b>					
Organisation Chain	Bharat Heavy Electricals Limited  BAP - Ranipet  Purchase				
Tender Reference Number	7720172E				
Tender ID	2022_BHEL_12260_1				
Tender Type	Open Tender	Form of contract	Supply		
Tender Category	Goods	No. of Covers	2		
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	No		
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	No		
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No		
<b>Cover Details, No. Of Covers - 2</b>					
Cover No	Cover	Document Type	Description		
1	Fee/PreQual/Technical	.pdf	TECHNO COMMERCIAL OFFER ALONG WITH QA REQUIREMENTS AND TECHNICAL AND FINANCIAL PQR		
2	Finance	.xls	PRICE BID		
<b>Tender Fee Details, [Total Fee in ₹ * - 0.00]</b>			<b>EMD Fee Details</b>		
Tender Fee in ₹	0.00		EMD Amount in ₹	0.00	EMD through BG/ST or EMD Exemption Allowed
Fee Payable To	Nil	Fee Payable At	Nil		No
Tender Fee Exemption Allowed	No		EMD Fee Type	fixed	EMD Percentage
			EMD Payable To	Nil	EMD Payable At
					NA
					Nil
<b>Work /Item(s)</b>					
Title	MANUAL AND PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE				
Work Description	SUPPLY OF MANUAL AND PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE				
Pre Qualification Details	REFER TENDER DOCUMENT				
Independent External Monitor/Remarks	NA				
Tender Value in ₹	NA	Product Category	Miscellaneous Goods	Sub category	WATER TREATMENT
Contract Type	Tender	Bid Validity(Days)	120	Period Of Work(Days)	112
Location	RANIPET	Pincode	632406	Pre Bid Meeting Place	NA
Pre Bid Meeting Address	NA	Pre Bid Meeting Date	NA	Bid Opening Place	BHEL RANIPET
Should Allow NDA Tender	No	Allow Preferential Bidder	No		
<b>Critical Dates</b>					

<b>Publish Date</b>	12-May-2022 01:00 PM	<b>Bid Opening Date</b>	02-Jun-2022 05:00 PM
<b>Document Download / Sale Start Date</b>	12-May-2022 01:05 PM	<b>Document Download / Sale End Date</b>	02-Jun-2022 11:00 AM
<b>Clarification Start Date</b>	12-May-2022 01:05 PM	<b>Clarification End Date</b>	01-Jun-2022 02:00 PM
<b>Bid Submission Start Date</b>	12-May-2022 01:05 PM	<b>Bid Submission End Date</b>	02-Jun-2022 11:00 AM

### Tender Documents

NIT Document	S.No	Document Name	Description	Document Size (in KB)	
	1	Tendernotice_1.pdf	MANUAL AND PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE	313.30	
Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	01-TENDER-COMMERCIAL-DOCUMENTS.pdf	COMMERCIAL DOCUMENT	2841.43
	2	Tender Documents	02TENDER-TECHNICAL-DOCUMENTS.pdf	TECHNICAL DOCUMENT	2488.70
	3	Tender Documents	03TENDER-QUALITY-REQUIREMENT-DOCUMENTS.pdf	QUALITY DOCUMENTS	1782.18
	4	BOQ	BOQ_12937.xls	PRICE BID	242.00

### Tender Inviting Authority

<b>Name</b>	AVINASH V
<b>Address</b>	DY MGR PURCHASE BHEL RANIPET

**OPEN TENDER ENQUIRY CHECKLIST**  
**MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE**  
**FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT**  
**Enquiry No. 7720172E Dated 11-MAY-2022**

Sl. No.	Document Name	Vendor Confirmation (Filled and Signed copy to be submitted along with Techno Commercial Offer)
01	<b>Annexure A</b> COVERING LETTER	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
02	<b>Annexure B</b> GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
03	<b>Annexure C</b> COMMERCIAL TERMS AND CONDITIONS - INDIGENOUS	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
04	<b>Annexure D</b> CEBG and PBG FORMAT	Not Applicable
05	<b>Annexure E</b> SPECIFICATION DEVIATION DISPOSITION REPORT	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
06	<b>Annexure F</b> UN PRICED /PRICE OFFER FORMAT	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
07	<b>Annexure G</b> Online SRF (optional)	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
08	<b>Annexure H</b> Make In India declaration Format	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
09	<b>Annexure I</b> PAYMENT MECHANISM	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
10	<b>Annexure J</b> INTEGRITY PACT	Not Applicable
11	<b>Annexure K</b> PQR – FINANCIAL SOUNDNESS	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
12	<b>Annexure L</b> Land Sharing countries GFR 2017 Rules amendment declaration form	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
13	<b>TECHNICAL PRE-QUALIFICATION REQUIREMENT for BFV– REF:- RWT21143:BFV REV 00 DATE 19.04.2022</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
14	<b>TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022 - BFV</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
15	<b>TECHNICAL SPECIFICATION NO. ROS 4288 REV 00 DATE 25.11.2021 - ACTUATORS</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
16	<b>CONTRACT QUALITY REQUIREMENT, ANNEXURE- Q,</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
17	<b>MANUFACTURING QUALITY PLAN FOR BFV QP NO.VALVE 615 REV 01 DATE 07.08.2021</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
18	<b>STANDARD QUALITY PLAN FOR PNEUMATIC ACTUATOR QA:CI:STD:QP:42 REV 04 DATE 14.09.2021</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>
19	<b>INSPECTION CHECK LIST INSP:CHK:001 REV 00 DATE 10.08.2020</b>	Submitted <input type="checkbox"/> Not Submitted <input type="checkbox"/>



# Bharat Heavy Electricals Limited

Boiler Auxiliaries Plant  
RANIPET – 632 406, Tamil Nadu, India  
PURCHASE – WATER SYSTEM

## **ANNEXURE - A** **MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE** **FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT**

**Enquiry No. 7720172E Dated 11-MAY-2022**

To All Bidders

Dear Sir,

Please submit your **MOST COMPETITIVE** quotation on **FIRM PRICE** basis, subject to our terms & conditions in the various annexures attached herein for the below listed materials so as to uploaded on or before the due date and time.

Requirement with Delivery date- for MAIN SUPPLY (FOR BHEL BAP Ranipet):

Item Sl.no.	Description	Qty	Unit	Delivery
001	RWT211430001 MANUAL BUTTERFLY VALVE OF SIZE 80 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	04	NO.	supply completion within 16 WEEKS from the date of CAT-I Approval of all Documents / Manufacturing clearance,
002	RWT211430002 MANUAL BUTTERFLY VALVE OF SIZE 100 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	02	NO.	
003	RWT211430003 MANUAL BUTTERFLY VALVE OF SIZE 150 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	04	NO.	
004	RWT211430004 MANUAL BUTTERFLY VALVE OF SIZE 200 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	02	NO.	

***All Items will be compared as a single PACKAGE Basis & Order will be placed on a Single vendor who is the lowest (LI) on PACKAGE basis.***

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

**PLEASE REFER TO,**

- 01 Annexure A COVERING LETTER**
- 02 Annexure B GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)**
- 03 Annexure C COMMERCIAL TERMS AND CONDITIONS – INDIGENOUS**
- 04 Annexure D CEBG OR BG FORMAT – NOT APPLICABLE**
- 04 Annexure E SPECIFICATION DEVIATION DISPOSITION REPORT**
- 05 Annexure F UN PRICED /PRICE OFFER FORMAT**
- 06 Annexure G Online SRF**
- 07 Annexure H Make In India declaration Format**



## Bharat Heavy Electricals Limited

Boiler Auxiliaries Plant  
RANIPET – 632 406, Tamil Nadu, India  
PURCHASE – WATER SYSTEM

- 08 Annexure I PAYMENT MECHANISM
- 09 Annexure J INTEGRITY PACT – NOT APPLICABLE
- 10 Annexure K PQR – FINANCIAL SOUNDNESS
- 11 Annexure L Land Sharing countries GFR 2017 Rules amendment declaration form

### TECHNICAL ENCLOSURES AS PER FOLLOWINGS:

- 01. TECHNICAL PRE-QUALIFICATION REQUIREMENT for BFV– REF:- RWT21143:BFV REV 00 DATE 19.04.2022
- 02. TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022 - BFV
- 03. TECHNICAL SPECIFICATION NO. ROS 4288 REV 00 DATE 25.11.2021 - ACTUATORS
- 04. CONTRACT QUALITY REQUIREMENT, ANNEXURE- Q,
- 05. MANUFACTURING QUALITY PLAN FOR BFV - QP NO.VALVE 615 REV 01 DATE 07.08.2021
- 06. STANDARD QUALITY PLAN FOR PNEUMATIC ACTUATOR - QA:CI:STD:QP:42 REV 04 DATE 14.09.2021
- 07. INSPECTION CHECK LIST - INSP:CHK:001 REV 00 DATE 10.08.2020

### Important Instruction to Bidders:

1. All the items will be procured from a single vendor only & all the Items will be compared on PACKAGE Basis & Order will be placed on a Single vendor who is the lowest (L1) on package basis. Hence please quote for all the items including services. Incomplete offers will be rejected.
2. Vendors shall go through the “Pre-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.

**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 BHEL's e-procurement portal developed by NIC (<https://eprocurebhel.co.in/>) only.

In case of any difficulty faced while registering on **BHEL's e-Procurement portal** developed by NIC, queries may be addressed to 0120-4001002, 0120-4001005 and 0120-6277787; email: [support-eproc@nic.in](mailto:support-eproc@nic.in) These details are also available on 'Contact Us' page of the portal.

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 login id and password to login to the portal. Enter your login id, password and click on Login button after Login, you need to select your digital signing and encryption certificates certificate.

**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, not a mandatory one 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.

- (xii) Registration process for items required by BHEL is always open at <https://supplier.bhel.in>. Prospective suppliers (including MSEs & owned by SCs/STs) may visit this site and apply for registration in the respective Unit.

**Price Bid** in conformance with the specification and terms as given in the Un-Priced bid 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 as mentioned in the commercial terms 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 time and date as mentioned in the enquiry document or subsequent corrigendum (if any). Part I will be opened on the scheduled day and time. Part II opening will be informed to techno-commercially qualified vendors.**
- b) Price Bid opening will be done through e-mode / Reverse Auction method (English method) as mentioned in the enquiry commercial terms. 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**

**Note: The evaluation currency for this tender shall be INR.**

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 offered 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).
- n) For this procurement, Public Procurement (Preference to Make in India), Order 2017 dated 15.06.2017, 28.05.2018, 29.05.2019, 04.06.2020 & 18.09.2020 and subsequent Orders issued by the respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/ PO/ WO against this NIT.

In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/ or local content in respect of this procurement, same shall be applicable.

For this procurement, the local content to categorize a supplier as a Class I local supplier / Class II local supplier / Non-Local supplier and purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT and subsequent amendments. In case of subsequent orders issued by the nodal ministry, changing the definition of local

content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

**Preference to Make in India** including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links <https://dipp.gov.in/public-procurements>

[http://dipp.nic.in/sites/default/files/publicProcurement\\_MakeinIndia\\_15June2017.pdf](http://dipp.nic.in/sites/default/files/publicProcurement_MakeinIndia_15June2017.pdf)

[http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017\\_28052018.pdf](http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017_28052018.pdf)

[https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019\\_0.pdf](https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019_0.pdf)

<https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf>

<https://dpiit.gov.in/sites/default/files/PPP%20MII%20Order%20dated%2016%2009%202020.pdf>

#### **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/Site 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: Refer commercial terms of enquiry. If not specified in commercial terms, then following will be followed.**

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. **Vendors to get themselves registered in Udyam registration Portal.** The existing Micro & Small vendors are to submit copy of CA certificate along with Udyog Adhar Registration Certificate.

**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 non 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 may counter offer the L1 prices for full package to eligible MSE vendor who are within the +15% band of L1.

Other concessions for MSEs / Reserved sectors (Also for women owned MSEs and MSEs owned by SC/STs)

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.”

### **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. Decision to go for RA would be taken before floating of the tender and will be specified in the enquiry commercial terms.

In case it is decided to go for RA, following may be referred to:-

“BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on [www.bhel.com](http://www.bhel.com)) for this tender. RA shall be conducted among all the techno-commercially qualified bidders. Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.”

Bidders are advised to read the RA guidelines published in BHEL portal [www.bhel.com](http://www.bhel.com).

<https://www.bhel.com/sites/default/files/Guidelines%20for%20Reverse%20Auction%20-%202021%20-%20Abridged.pdf>

### **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 instalment 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 submitted for a value of 2% of the Purchase order within 30 days from issue of PO. CEBG will be returned after submission of 10% PBG/BG.**

**Suppliers who are 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 submitted for a value of 10% of the Purchase order along with the first invoice.**

**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 accepted 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):-**

- I. 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) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl.No	IEM	Email
1.	Shri Arun Chandra Verma, IPS (Retd.)	acverma1@gmail.com
2.	Shri Virendra Bahadur Singh, IPS (Retd.)	vbsinghips@gmail.com

- II. The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/ three part 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.
- III. 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 any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

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's officials whose contact details are provided below:*

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

Name: Avinash V Dy Manager / Purchase Department Address: Admin Building, First Floor, BHEL BAP Ranipet Tamil Nadu - 432406 Phone: 04172 284958 / 9629206425 Email: <a href="mailto:avinashv@bhel.in">avinashv@bhel.in</a>	Name: BP Choudhary Sr. Manager / Purchase Department Address: Admin Building, First Floor, BHEL BAP Ranipet Tamil Nadu - 432406 Phone: 04172 284474 / 9425604768 Email: <a href="mailto:bp.choudhary@bhel.in">bp.choudhary@bhel.in</a>
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Integrity Pact are applicable for all the BHEL enquiries whose estimated value is equal to or more than Rupees 02 Crores.

Format 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 enquiry Annexures applicable at the time of finalising the order against this tender.

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**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE – WATER SYSTEM**  
**COMMERCIAL TERMS AND CONDITIONS**  
**MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE**  
**FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT**  
**Enquiry No. 7720172E Dated 11-MAY-2022**

Sl. No.	DESCRIPTION	BHEL (PURCHASER) REQUIREMENT	VENDOR (SELLER) CONFIRMATION
<b>I</b>	<b><u>PRE-QUALIFICATION REQUIREMENT</u></b>		
1	PRE-QUALIFICATION REQUIREMENT (TECHNICAL)	Vendor should submit the Filled QR Datasheet & Necessary supporting documents proof for meeting the QR as per Pre-Qualification Requirement (PQR) for <b>MANUAL &amp; PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE</b>  <b>1) RWT21143:BFV REV 00 DATE 19.04.2022</b>	
2	PRE-QUALIFICATION REQUIREMENT (FINANCIAL SOUNDNESS)	Vendor should submit the Filled QR Datasheet & Necessary supporting documents proof for meeting the QR as per Pre-Qualification Requirement (PQR) for FINANCIAL SOUNDNESS  <b>1) ANNEXURE - K</b>	
3	FILLED Qualification Requirements DATA SHEET & NECESSARY SUPPORTING DOCUMENTS PROOF SUBMISSION	BHEL reserve the right to Accept/Reject the bids if any of the above details are not submitted - Please confirm	
<b>II</b>	<b><u>Technical</u></b>		
4	SCOPE OF SUPPLY	Please confirm the Scope of Supply of <b>"MANUAL &amp; PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE"</b> as per Specification No.  <b>01. TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022 - BFV</b> <b>03. TECHNICAL SPECIFICATION NO. ROS 4288 REV 00 DATE 25.11.2021 - ACTUATORS</b>  submit the same after necessary Filling, signing & returning a copy of the same.	
5	SPECIFICATION	Please confirm Clause wise / Point wise "IN TOTO" for all specifications and submit along with offer.	
6	DATA SHEETS / DRAWINGS	Filled Data Sheets and Drawings are to be submitted along with offer. (if applicable )	
7	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).	
<b>III</b>	<b><u>Quality Terms &amp; Conditions</u></b>		
8	QUALITY REQUIREMENTS	CONTRACT QUALITY REQUIREMENT,  ANNEXURE- Q,  submit the same after necessary Filling, signing & returning a copy of the same.	
9	QUALITY ASSURANCE PLAN (QAP)	Please Confirm to adhere the following MQP & SQP  MANUFACTURING QUALITY PLAN FOR BFV QP NO. VALVE 615 REV 01 DATE 07.08.2021,  STANDARD QUALITY PLAN FOR PNEUMATIC ACTUATOR QA:CI:STD:QP:42 REV 04 DATE 14.09.2021  Please Refer Quality plan and provide your acceptance on all pages with seal & Sign.	
10	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. Inspection charges if any to be indicated in the price bid format.	
11	TEST CERTIFICATE (TC)	Please confirm that required TC will be provided as per the QAP Clause wise at 'No Extra Cost'.	
12	INSPECTION CHECK LIST	Please confirm that required documents to be submitted as per the Inspection document Check List INSP:CHK:001 REV 00 DATE 10.08.2020 - for getting MDCC from End Customer/Consultant/BHEL.	
<b>IV</b>	<b><u>Commercial Terms &amp; Conditions</u></b>		



**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE – WATER SYSTEM**  
**COMMERCIAL TERMS AND CONDITIONS**  
**MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE**  
**FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT**  
**Enquiry No. 7720172E Dated 11-MAY-2022**

Sl. No.	DESCRIPTION	BHEL (PURCHASER) REQUIREMENT	VENDOR (SELLER) CONFIRMATION
13	PRICE	Please confirm 'Firm Price' till completion of order. Price Variation not applicable.	
14	UNPRICED BID (PART-1)	Please confirm submission of 'Unpriced bid' in the price bid format attached duly signed. SCANNED COPY of FILLED & SIGNED COPY OF 'Price Bid' format attached by filling all informations by writing 'Quoted' as the case may be in the 'Rate' and 'Value' columns to be submitted through E-Procurement System.	
15	PRICED BID (PART-2)	Please confirm submission of 'Priced bid' in the price bid format - Annexure - F (BOQ) attached	
16	DELIVERY TERMS & PRICE BASIS	Please confirm for FOR - Destination ( <b>BHEL BAP Ranipet Stores</b> ) basis.  Unloading the Material at stores is BHEL's Scope	
17	CONSIGNEE ADDRESS	Please confirm supply to the following consignee address in the event of Order.  <b>THE AGM / STORES</b> <b>BHARAT HEAVY ELECTRICALS LIMITED,</b> <b>BOILER AUXILIARIES PLANT,</b> <b>RANIPET – 632 406 TAMILNADU.</b> <b>GSTIN 33AAACB4146P2ZL</b> <b>PAN NO. AAACB4146P</b>	
18	ORIGIN OF DESPATCH OF VARIOUS 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.	City of Dispatch: _____ State of Dispatch: _____
19	PACKING & FORWARDING	Please confirm inclusion of Packing & Forwarding Charges in the Basic quoted price.  If it is extra payable by BHEL, Please clearly indicate the applicable Packing & Forwarding charges in % value.  Packing shall be in conformity with specifications and shall be such as to ensure prevention of damages, corrosion, deterioration, shortages, pilferage and loss in transit or storage.  Packing List shall be submitted as per standard format along with advance set of documents for claiming payment which shall also indicate:- a) Packing size. b) Gross weight and net weight of each package. c) Contents of the package with quantity of each item separately.	
20	FREIGHT & INSURANCE	Please confirm inclusion of Freight & Insurance Charges towards this in the Basic quoted price.  A) If Freight & GST is extra payable by BHEL, Please clearly indicate the applicable portions of : 01.Freight charges in % on Basic Quoted price.  02.If GST applicable for the freight kindly indicate the same.  B) If Insurance is extra payable by BHEL, Please clearly indicate the applicable portions of : Insurance charges in % on Basic Quoted price.  All dispatches shall be through road carriers approved by Purchaser/ Bank, on freight pre-paid basis.  Road Permit/E-way bill, if required, will be arranged by Supplier.	

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE – WATER SYSTEM**  
**COMMERCIAL TERMS AND CONDITIONS**  
**MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE**  
**FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT**  
**Enquiry No. 7720172E Dated 11-MAY-2022**

Sl. No.	DESCRIPTION	BHEL (PURCHASER) REQUIREMENT	VENDOR (SELLER) CONFIRMATION
21	GOODS AND SERVICES TAX FOR SUPPLY PORTION (CGST/SGST/UTGST/IGST)	<p>Seller/ Contractor is required to ensure that 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/contractor 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> <p>CGST/SGST/UTGST/IGST shall be paid at actuals against Tax Invoice but restricted to the amount and percentage in the order/contract</p>	
		Please Confirm the Applicable percentage of CGST/SGST/UTGST/IGST Payable Extra by BHEL (OR) Not?	GST ____% GSTN Certificate to be submitted
22	PAYMENT TERM FOR SUPPLY	100% payment will be against Receipt of Material at Stores (DB i.e Day Book Register receipt) & receipt of complete documents as per PO.	
23	CONFIRM THE PAYMENT TERM FOR SUPPLY. (DURATION FOR MAKING PAYMENT)	<p>Differential Payments applicable for Supply &amp; Service -</p> <p><b>Within 45 days for MSE (Micro &amp; Small Enterprise) vendor &amp;</b></p> <p><b>Within 90 days for MEDIUM &amp; Non MSE vendors</b></p> <p><b>For MSE status Registration, you have to submit the Notarized copy of MSE Udyam Certificate with Original CA certificate.</b></p>	<p>Select Any one</p> <p>Micro or Small Bidder _____ (Submit Udyog Adhaar)</p> <p>Medium / Large Bidder _____</p>
24	UN-ACCEPTABLE PAYMENT TERMS	Offers with payment Terms such as Cash against Delivery / advance payment / payment through Bank against dispatch documents will be summarily rejected	
25	DELIVERY PERIOD FOR THE SUPPLY (ENQ. SL. NO. 001 - 004 MAIN ITEMS & COMMISSIONING SPARES if any)	<p>Please confirm the supply completion within <b>16 WEEKS from the date of CAT-I Approval of all Documents / Manufacturing clearance.</b></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 supplier's delays in 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>	
26	LIQUIDATED DAMAGES (LD) - Main 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 (1/2) percent and applicable GST thereon, of the total contract price (main supply), excluding GST per week or part thereof, subject to a maximum of ten (10) percent of the total contract price (main supply) excluding GST, if supply completion of the package is delayed beyond the contractual completion date or extension thereof as per the period stipulated in the Order/ Contract.	
27	OFFER VALIDITY	Please confirm Offer Validity for a minimum period of 120 days from the date of PART I bid opening.	
28	GUARANTEE CERTIFICATE (GC) - Supply Portion.	Please confirm furnishing of Guarantee certificate in BHEL format for 12 months from the date of receipt of materials at BHEL stores.	
29	REVERSE AUCTION	Not Applicable	
30	RISK PURCHASE CLAUSE	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 LD Clause above.	

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE – WATER SYSTEM**  
**COMMERCIAL TERMS AND CONDITIONS**  
**MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE**  
**FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT**  
**Enquiry No. 7720172E Dated 11-MAY-2022**

Sl. No.	DESCRIPTION	BHEL (PURCHASER) REQUIREMENT	VENDOR (SELLER) CONFIRMATION
31	ZERO DATE (CONTRACT EFFECTIVE DATE)	Contract Effective date starts from Manufacturing Clearance subject to Documents submission clause. Please confirm for 'Date of Manufacturing Clearance'.	
32	Loading Criteria	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 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.  In respect of LD offers which do not accept for LD Clause would be summarily rejected - Please Confirm.	
33	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.	
34	LAW GOVERNING THE CONTRACT AND COURT JURISDICTION	The contract shall be governed by the Law for the time being in force in the Republic of India. The Civil Court having original Civil Jurisdiction at Ranipet / Vellore Tamil Nadu, shall alone have exclusive jurisdiction in regard to all matters in respect of the Contract.	
35	FRAUD 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 <a href="http://www.bhel.com">http://www.bhel.com</a> and shall immediately bring to the notice of BHEL management about any fraud or suspected fraud as soon as it comes to their notice	
36	PLEASE PROVIDE THE STATUTORY DETAILS (Submit a copy of PAN, if not submitted already)	GST Regn. Number	
		HSN NO.: HARMONIZED SYSTEM OF NOMENCLATURE UNDER GST FOR THE OFFERED ITEM	
		PAN No. :	
37	CONTACT PERSON'S ON TECHNICAL DETAILS FOR CORRESPONDENCE	Name:	
		Designation:	
		Phone No.:	
		Mobile No.:	
		Fax No.:	
		E-mail ID:	
38	CONTACT PERSON'S ON COMMERCIAL DETAILS FOR CORRESPONDENCE	Name:	
		Designation:	
		Phone No.:	
		Mobile No.:	
		Fax No.:	
		E-mail ID:	
39	GeM Registration	GeM vendor ID is mandatory for all tenders above Rs 25 Lakhs	GeM Seller ID _____
40	<b>BHEL will not take cognizance of commercial terms mentioned by the bidder any where else.</b>  <b>Commercial terms and conditions indicated in this Annexure - C will only be applicable and binding.</b>	<b>Acceptance Required</b>	

ANNEXURE - E TECH SPECIFICATION AND COMMERCIAL TERMS DEVIATION DISPOSITION REPORT			
Enquiry No. 7720172E Dated 11-MAY-2022		MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE FOR SAGARDIGHI TPP EXTN U#5 1X660 MW PROJECT	Vendor Name
01. TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022 - BfV			
02. TECHNICAL SPECIFICATION NO. ROS 4288 REV 00 DATE 25.11.2021 - ACTUATORS			
03. Quality evaluation requirements			
04. Commercial Terms & Conditions as per Annexure C			
05. Financial PQR - Annexure K			
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

Validate

Print

Help

### Item Wise BoQ

**Tender Inviting Authority: DEPUTY MANAGER/PURCHASE**

**Name of Work:MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE**

**Contract No: 7720172E / 11.05.2022**

<div> <div>Name of the Bidder/ Bidding Firm / Company :</div> <div></div> </div>									
<div> <div>PRICE SCHEDULE</div> <div>(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )</div> </div>									
NUMBER #	TEXT #	TEXT #	NUMBER #	TEXT #	NUMBER #	NUMBER	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Item Code / Make	Quantity	Units	BASIC RATE PER UNIT(Inclusive of packing & forwarding, freight and insurance) to be entered by the Bidder in INR Rs. P	GST on Basic price to be entered by the Bidder in percentage	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT With Taxes in Rs. P	TOTAL AMOUNT In Words
1	2	3	4	5	13	14	53	54	55
0	MANUAL & PNEUMATIC OPERATED LOW PRESSURE BUTTERFLY VALVE								
1	MANUAL BUTTERFLY VALVE OF SIZE 80 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	RWT211430001	4	NO		18.00	0.00	0.00	INR Zero Only
2	MANUAL BUTTERFLY VALVE OF SIZE 100 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	RWT211430002	2	NO		18.00	0.00	0.00	INR Zero Only
3	MANUAL BUTTERFLY VALVE OF SIZE 150 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	RWT211430003	4	NO		18.00	0.00	0.00	INR Zero Only
4	MANUAL BUTTERFLY VALVE OF SIZE 200 NB AS PER TECHNICAL SPECIFICATION NO. ROS 6341 REV 00 DATE 22.04.2022, ROS 4288 REV 00 DATE 25.11.2021.	RWT211430004	2	NO		18.00	0.00	0.00	INR Zero Only
Total in Figures							0.00	0.00	INR Zero Only
Quoted Rate in Words		INR Zero Only							

## ANNEXURE G

### **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.

Annexure H  
(On company letter head)

Self-Certification under Preference to  
“MAKE IN INDIA” Policy

CERTIFICATE

In line with Government Public Procurement Order No. P-45021/2/2017-BE-II dt. 15.06.2017, as amended from time to time and as applicable on the date of submission of tender, we hereby certify that we M/s \_\_\_\_\_ (supplier name) are local supplier meeting the requirement of minimum Local content as defined in above orders for the material / package against BHEL's Enquiry No. \_\_\_\_\_ **Dated** \_\_\_\_\_

Please select one category from below

- ☐ Class I supplier – (Local content more than 50%)  
☐ Class II Supplier – (Local Content >20% & ≤50%)  
☐ Non-Local Supplier – (Local Content less than 20%)

Details of location at which local value addition will be made is as follows:

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We also understand, false declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rule for which for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Seal and Signature of Authorized Signatory

\*For tenders with value more than INR 10 Crore, above declaration to be accompanied by a certificate from a CA. please refer GOI's MII order P-45021/2/2017-BE-II dt. 15.06.2017 latest revision dt 16.09.2020.

# ANNEXURE I

## 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>Bharat Heavy Electricals Limited</b> Boiler Auxiliaries Plant RANIPET – 632 406, Tamil Nadu, India	Ref.: Enq. No. 7720172E  Date : 11.05.2022
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**Annexure K**  
**PRE-QUALIFICATION REQUIREMENT (QR)**  
**FINANCIAL SOUNDNESS**

Sl. No.	BHEL REQUIREMENT	VENDOR (SELLER) CONFIRMATION
1	The bidder has to submit financial accounts (audited, if applicable comprising of Audit report, Balance Sheet, Profit & Loss A/c Statement and Notes/Schedules pertaining to Turnover/Sales/Revenue), for last three years (or from the date of incorporation, whichever is less) as on tender due date to review the above criteria. In case the incorporation of vendor is less than 3 years, average annual financial turnover shall be calculated based on available information as below:-	
2	Average annual financial turnover during the last Three Financial Years ending 31.03.2021 should not be less than Rs 100,000/- (Rs One Lakh)	

**Signature, Seal & Date of Bidder**

# To be submitted in company letter head

## ANNEXURE L

I/we are bidder from \_\_\_\_\_ (Address with country).  
We do not belong to any of the below category mentioned.

1. Any of entity/office/workshop of our organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.
2. Any of subsidiary of our organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.
3. Any of entity/office/workshop of our organisation/incorporation, controlled in a country sharing land border with India, If yes, provide the full address of all such locations.
4. Any of entity whose beneficial owner is situated in a country sharing land border with India, If yes, provide the full name, address of all such locations.
5. Any Indian Agent available, If so, Provide details of address and contacts.
6. Any employee/directors who is/are citizen of country sharing land border with India, If yes, provide the full name, employee code and address of all such locations.
7. Any of consortium/joint venture of our organisation/incorporation, established in a country sharing land border with India, If yes, provide the full address of all such locations.

### Meaning of beneficial owner

- 1) In case of a company or limited liability partnership, beneficial owner is the natural person, who, whether acting alone or together, or through one or more judicial person, has a controlling ownership interest or who exercises control through other means.

### Explanation

- a) Controlling ownership interest means ownership of or entitlement to more than twenty-five percent of shares or capital or profits of the company.
  - b) "control" shall include the right to appoint majority of the directors or to control the management rights or shareholder's agreement or voting agreement.
- 2) In case of a partnership firm the beneficial owner is the natural person (s) who whether acting alone or together or through one or more judicial person, has ownership of the entitlement to more than fifteen percent of capital or profits of the partnership.
  - 3) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more judicial person, has ownership of the entitlement to more than fifteen percent of the property or capital or [profits of such association or body of individual.

# To be submitted in company letter head

- 4) Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official.
- 5) In case of a trust, the identification of beneficial owner (s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust and any other natural person exercising the ultimate effective control over the trust through a chain of control of ownership.
- 6) An agent is a person employed to do any act for another, or to represent another in dealing with third person.

We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India, we hereby declare that we do not belong to any such country and are eligible to be considered.


In case, any of information is found to be false, even after bid acceptance, immediate termination may happen and action will be taken as per law.

Format is being filled without altering any of the clause mentioned in the given format\*\*

Dated: \_\_\_\_\_


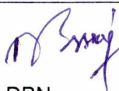
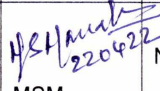
Authorised Sign and stamp\_\_\_\_\_

Receipt No : 799164/2022/BAP-WS(CON)

	<b>TECHNICAL SPECIFICATION FOR MANUAL &amp; PNEUMATIC OPERATED BUTTERFLY VALVES</b>	SPEC.NO.ROS:6341
		REV.NO.00

## TECHNICAL SPECIFICATION

### Manual and Pneumatic Operated Butterfly Valves

00	22.04.2022	 KVS	 DBN	 MSM	New Document
Rev.No	Date	Prepared	Checked	Approved	Remarks

	<b>TECHNICAL SPECIFICATION FOR MANUAL &amp; PNEUMATIC OPERATED BUTTERFLY VALVES</b>	SPEC.NO.ROS:6341 REV.NO.00
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## **EQUIPMENT SPECIFICATIONS**

### **1.0 GENERAL**

- a. Equipment : Manually / pneumatic operated Butterfly Valves
- b. Application : For use in RO desalination plant
- c. Surrounding : Dusty, humid atmosphere near thermal Power plant
- d. Installation : Indoor/ outdoor
- e. Ambient Temp : 45 Deg. C Max 15 Deg. C Minimum
- f. Duty : Tight shut off/ Isolation/ Regulation
- g. Operation : Continuous

### **1.1 PROJECT INFORMATION**

- a. Owner : West Bengal Power Distribution Corporation Ltd
- b. Project Title : Sagardighi Power Project, 1 x 660 MW
- c. Location : Sagardighi, West Bengal State, India

### **1.2 DESIGN PARAMETER**

Manual & Pneumatic Butterfly Valve (Brackish/ desalinated water)

Application: Low TDS water applications (RO permeate water)

- a. Fluid details
  - 1. Medium handled : RO Permeate
  - 2. pH : 2 to 12
  - 3. TDS ppm : 5000 (max)
  - 4. Chloride ppm : 500 (max)
  - 5. Specific gravity : 1.00
  - 6. Temperature Deg C : 15 to 45
- b. Material of construction
  - 1. Body : 2% Ni Cast Iron as per IS-210 Gr. FG260 with 2% Ni.
  - 2. Disc : 2% Ni Cast Iron as per IS-210 Gr. FG260 with 2% Ni
  - 3. Stem / Shaft : ASTM-A-296 type 316
  - 4. Seat : Nitrile/EPDM (replaceable)/Hypalon
  - 5. Disc Screw (if applicable) : SS316
  - 6. Bushing : Polyacetal
  - 7. Fasteners : SS316
  - 8. Handle : Steel or malleable Cast Iron
- c. Design details
  - 1. Type of valve : Wafer type, Centric (no offset)
  - 2. Valve pressure rating : PN 10
  - 3. Flange Drilling Standards : ASME B 16.5, #150 for valve size upto 500NB
  - 4. Face to face standard : BS EN558-1 Base series-20
- d. Design standards : ASME B 16.34/ BS 5155/ AWWA-C-504/EN593/ API 609
- e. Testing standards : As per AWWA-C-504

	<b>TECHNICAL SPECIFICATION FOR MANUAL &amp; PNEUMATIC OPERATED BUTTERFLY VALVES</b>	SPEC.NO.ROS:6341
		REV.NO.00

**Scope of Supply :**

Sl.No	Type	Size	OCLS Limit switch	AFR mounted	Solenoid on Actuator	Smart positioner
			Mounted on valve			
1	Manual Butterfly valve	80NB	NO	NO	NO	NO
2	Manual Butterfly valve	100NB	NO	NO	NO	NO
3	Manual Butterfly valve	150NB	NO	NO	NO	NO
4	Pneumatic Butterfly valve	200NB	YES	NO	NO	NO

**2.0 GENERAL DESIGN REQUIREMENT**

- Only latest Revision of standard shall be used.
- Datasheet to be filled for each valve as per **Annexure-A**
- Painting: As per customer approval. Details will be communicated detailed engineering
- Valves of sizes up to DN 150 shall be supplied with handle with locking arrangement and valves with sizes above DN 150 shall be supplied with gear box and hand wheel
- Valves should be suitable for mounting between pipe flanges of UPVC/ HDPE/ GRP.
- Vendor shall confirm the suitability of the material of Valve seat for the temperature specified.

**3.0 EC&I**

- Refer **ROS-4288, Rev-00** for Technical Specification of Pneumatic Actuator for ON-OFF Valve

**4.0 DOCUMENTS / DETAILS ALONG WITH OFFER**

The following information / documents shall be submitted along with the offer

- Duly filled up data sheet in the enclosed format (**Annexure-A**)
- GA assembly drawing with overall dimensions
- Valves Catalogues
- List of Deviations. If no deviation is mentioned in technical offer, it will be considered as NIL deviation

**Note: Bidder to note that failing to submit the above documents / details along with the offer, the bid shall be considered as incomplete and offers are liable for rejection.**

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

- The following documents are to be submitted for BHEL's approval
  - Duly filled up data sheet in the enclosed format
  - List of applicable standards for shop test

	<b>TECHNICAL SPECIFICATION FOR MANUAL &amp; PNEUMATIC OPERATED BUTTERFLY VALVES</b>	SPEC.NO.ROS:6341 REV.NO.00
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- Detailed assembly drawing with overall dimensions
- Valve Characteristic curves
- 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

## 6.0 INSPECTION

By BHEL / BHEL's authorized agency at Vendor's works

## 7.0 ADDITIONAL POINTS:

- a. Acceptance Certificate for valve shall follow EN10424 or approved equivalent codes as applicable.
- b. All valves will be closed in clock wise direction when looking at the face of the hand wheel. The valves shall have rising spindles & non rising hand wheels. Plastic Valves hand wheels will not be acceptable.
- c. Vendor shall make one site visit for troubleshooting & assistance during commissioning of the valves based on Customer's request without any commercial implications.

	<b>TECHNICAL SPECIFICATION FOR MANUAL &amp; PNEUMATIC OPERATED BUTTERFLY VALVES</b>	SPEC.NO.ROS:6341
		REV.NO.00


**Annexure-A**

DATA SHEET FOR BUTTERFLY VALVES		
(To be submitted by the vendor for each size and each type of valve)		
SI No	Description	Offer from Vendor / Confirmation
<b>I.</b>	<b>TECHNICAL PARAMETERS</b>	
1	Make :	
2	Model :	
3	Type	
4	Fluid details - Medium handled :	
	- pH range :	
	- TDS / Chloride range ppm :	
	- Temperature range Deg.C :	
5	Design Cv of the valve :	
6	Valve rating :	
7	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)	
8	Design pressure Bar (g) :	
	Hydraulic test pressure	
	- Body Bar (g) :	
	- Seat Bar (g) :	
9	Max. Shut off pressure Bar (g) :	
<b>II.</b>	<b>CONSTRUCTION DETAILS</b>	
a.	Material of construction -Body :	
	-Disc :	
	-Stem :	
	- Seat	
	-Disc Screw :	
	-Bushing :	
	-Handle :	
	- Fasteners :	
b.	End Connection / Rating / Standard :	
c.	Recommended minimum pipe ID mm :	
d.	Actuator details (if applicable) :	
<b>III.</b>	<b>GENERAL</b>	
a.	Weight per valve :	
b.	Applicable standards :	
c.	Valve GA Drawing / cross Sectional Drg. :	

Date:

Vendor's Signature with Seal



	1 X 660 MW, SAGARDHIGI TPP (Phase-3, Unit-5)	BAP-RANIPET
	SPECIFICATION FOR PNEUMATIC ACTUATOR AND ACCESSORIES (ON-OFF Type)	No: ROS: 4288, REV: 00


BHARAT HEAVY ELECTRICALS LIMITED,  
RANIPET- 632 406.

### TECHNICAL SPECIFICATION

For

PNEUMATIC ACTUATOR & ACCESSORIES  
(ON-OFF Type)

00	25.11.2021	AJV	MEGA	VNS	Fresh issue
Rev.No	Date	Prepared	Checked	Approved	Remarks

	<b>1 X 660 MW, SAGARDHIGI TPP (Phase-3, Unit-5)</b>	<b>BAP-RANIPET</b>
	<b>SPECIFICATION FOR PNEUMATIC ACTUATOR AND ACCESSORIES (ON-OFF Type)</b>	<b>No: ROS: 4288, REV: 00</b>

**SPECIFICATION FOR PNEUMATIC ACTUATOR & ACCESSORIES**

This document details specification of components for pneumatic actuation of on-off valves for RO-DM plant of thermal power plant.

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 the following.

**1. PNEUMATIC ACTUATOR & ACCESSORIES FOR ON-OFF VALVE**

1.1.	Quantity	01 No. for each Pneumatic Operated Valve (POV)
1.2.	Type	Ball/Butterfly valve: Pneumatic Rotary (Rack & Pinion) Double acting (Air to Open & Air to Close) Diaphragm valve: Pneumatic Diaphragm, Double acting (Air to Open & Air to Close)
1.3.	Pressure	4-7 Kg /sq. cm
1.4.	Air Connection	½" / ¼" NPT(F) copper/SS tube (size shall be informed during detail engineering)
1.5.	Hand wheel for manual operation	Required
1.6.	State of driven equipment on air failure	Stay put
1.7.	Torque capacity	Vendor to select to suit torque requirement of valve type, size & rating.


**2. SOLENOID VALVE**

The Solenoid valves shall be mounted on on-off pneumatic valves.

3.1.	Quantity	As per enquiry
3.2.	Type	5/2 way Solenoid valve (Single solenoid spring return) suitable for double acting actuator. All solenoid shall be with varister, LED indication, surge suppress diode and circuits
3.3.	Body	SS316/Die Cast Aluminium
3.4.	Plunger/trim	SS316/Suitable for magnetic actuation
3.5.	Orifice size range	Minimum 6 mm
3.6.	Pressure range	Dry, oil free instrument air @ 4 to 7 Kg/sq. cm
3.7.	Duty	Continuous
3.8.	Coil Voltage	24 V DC
3.9.	Class of insulation	" F "
3.10.	Manual override	Required for each SOV
3.11.	Shut off class	tight shut off
3.12.	Power	Low power type Solenoid Valves shall be considered.

**3. LIMIT SWITCH**

Limit Switch shall be provided in all ON-OFF pneumatic valves and applicable manual valves as per enquiry. 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

	<b>1 X 660 MW, SAGARDHIGI TPP (Phase-3, Unit-5)</b>	<b>BAP-RANIPET</b>
	<b>SPECIFICATION FOR PNEUMATIC ACTUATOR AND ACCESSORIES (ON-OFF Type)</b>	<b>No: ROS: 4288, REV: 00</b>

AC , 0.5A, 220 V DC. Enclosure shall be weather proof IP 55. Limit Switch terminals shall be brought out to a Terminal.

Limit switches should be National Acme Co., or Honeywell micro switch type or equivalent.

#### 4. AIR FILTER REGULATOR

4.1.	Quantity	As per enquiry
4.2.	Type	Auto drain (Normally closed)
4.3.	Inlet Pressure	4 – 7 Kg / sq. cm
4.4.	Filtering particles	> 5 microns
4.5.	Filter Element	Sintered bronze/Phosphor Bronze/ Polypropylene
4.6.	Output pressure	0 – 7 Kg / sq. cm
4.7.	Output Gauge Range	0-10 Kg/sq.cm
4.8.	Output Pressure Gauge	40 mm Diameter dial (minimum)
4.9.	Blow down valve	To be provided
4.10.	Air connection Inlet	suitable SS316 end fittings to be provided for 1/2" NPT M SS tube

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

During Offer:

Datasheet and/or catalog with selected model number for  
Actuator, Air Filter Regulator, Solenoid valve and Limit switch

After Oder:

- GA drawing of the complete valve-actuator-accessories arrangement
- Datasheet & O&M manual of actuator, solenoid, positioner, position transmitter, limit switch and AFR.


#### 6. INDICATIVE MAKE OF COMPONENTS

S.No.	COMPONENT	MAKE
6.1.	Actuator (If available, valve OEM makes are also acceptable)	E-LO-MATIC INDIA LTD*, FISCHER XOMOX*, ROTEX * CRANE PROCESS FLOW TECHNOLOGY (REVO)* VIRGO ENGINEERS LTD*, WEIR BDK*, DUCAN* MIL (MASOLINE INDIA LTD)*, INSTRUMENTATION LTD*, PALAKKAD. KERALA STATE ELECTRONICS DEVELOPMENT CORPORATION LTD, AROOR
6.2.	Air Filter Regulator	SHAVONORGEN*, PLACKA*
6.3.	Solenoid Valve	ASCO*, AVCO*, ROTEX*, NUCON*, DUCAN*, FESTO* IMI NORGREN*, INSTRUMENTATION & CONTROL SYS*

\*Credentials to be submitted

#### 7. INSPECTION:

By BHEL or BHEL Approved third party inspection at vendor's works.

	<b>BHEL: BAP: RANIPET</b> <b>Water Business</b>  <b>Pre-Qualification requirement for Butterfly Valves</b>	Ref: RWT21143:BFV
		Dt: 22.04.2022
		Rev : 00


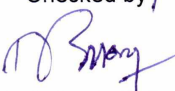
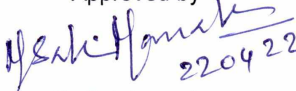
The Qualification requirements for Butterfly Valves are detailed below and Bidders should meet the same. Offers of bidders who do not meet qualification requirement will not be considered.


1. Bidder should have designed manufactured & supplied Butterfly valve either directly or through authorized agency in at least one plant.
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 valve as described in the table below & the valve supply should have completed minimum one year, as on date of techno commercial bid opening. Bidder to provide supporting documents meeting QR such as approved GA Drawing, approved Data Sheet, Purchase Order Copy, LR Details etc.:

Sl. No.	ITEM	DESCRIPTION
a.	Type of Valve	Manual/ pneumatic Operated Butterfly Valve
b.	Material of Construction of the Valve Disc	Carbon Steel/SS316/Duplex SS
c.	End Connection	Wafer Type/ Flanged
d.	Pressure Rating (min.)	PN 10
e.	Size (min.)	DN 50

**General Conditions:**

1. Bidder shall furnish necessary documentary evidence 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  K Vijaya Sankar Engineer / WS	Checked by  D. Balaraju Naik Mgr/WS	Approved by  M. Salaimanalan DGM/WEG & WS
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	<b>BHEL: BAP: RANIPET</b> <b>Water Business</b>  <b>Pre-Qualification requirement for Butterfly Valves</b>	Ref:	RWT21143:BFV
		Dt:	22.04.2022
		Rev :	00

**Annexure-I**  
**Qualification**  
**Datasheet**

**A. Butterfly Valve Details: -**

Date of Supply :

Sl. No.	Parameters	Details
01	Type of Valve	
02	MOC Of Butterfly valve : Body Disc Shaft Seat	

**B. Customer details: -**

- a. Name :  
b. Designation :  
c. Mobile :  
d. Land line :  
e. Fax :  
f. Email id :  
g. Postal address :

Signature of the Bidder with  
seal

## **Quality Assurance (Mech)**

### **CONTRACT QUALITY REQUIREMENT (CQR)**

WS: SAGA: BF VALVE: 443

Dt. 28-04-2022

Project : SAGARDIGHI (1X660 MW)  
Item Name : BUTTER FLY VALVES for CWBD treatment Plant  
Technical Specification/Drawing : ROS: 6341, Rev: 03 & ROS:4288, Rev:00 (For Actuators)

1. All the items shall be inspected at Manufacturer works as per BHEL approved MQP /Approved datasheet and Technical Specification.
2. Arrange Detailed Vendor QP containing minimum check (Refer attached QP No: VALVE: 615, REV: 01, DT: 07.08.2021). Any clarification/deviation in our QP shall be discussed and settled before PO Placement. Vendor QP Shall be this MQP Format only with vendor sign and seal.
3. Physical Inspection shall be done by BHEL/BHEL AIA/EndCustomer at Manufacturer works.
4. Packing of items shall be as per BHEL Engg Approved Packing Drawing/Packing Specifications.
5. BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO. The supplier shall inform BHEL in advance about the readiness of the goods for inspection and testing. Inspection / Inspection wavier / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO. Material Test Certificates shall be submitted to BHEL.
6. Annexure 'Q' shall be part of enquiry File and shall be filled by Supplier with their duly sign and seal.
7. Supplier should be manufacturer not a trader/Agent. (If the OEM/Principal engaging the services of an agent to participate on their behalf, vendor will be acceptable with respect to Quality requirement provided acceptance on Point No 1, 2, 3 and 6 shall be accepted to supplier)
8. **Following Inspection Notes applicable during inspection:**
  - a. Latest version of standards & Specification shall be applied.
  - b. Materials shall be procured in compliance to Functional Technical specification.
  - c. Gauges and measuring instruments with valid calibration only shall be used.
  - d. Inspection / Inspection wavier / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
  - e. BHEL /BHEL Authorized representatives shall have the right to witness the necessary Inspection and testing of goods mentioned in the PO.
  - f. In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
  - g. This QP shall be read along with relevant PO, BHEL Specification / Approved Drawing/ Datasheet.

Receipt No : 809418/2022/BAP-QA\_MECH

Annexure Q		
	Indent No:	Enquiry no:
Sl.No	BHEL / Customer Requirements	## Specific confirmations by the manufacturer (Acceptable/Not acceptable)
1	<b>Quality Plan Requirement: (If SQP is not given &amp; Vendor QP applicable)</b>	
	(i) MQP (Manufacturing Quality Plan) shall be submitted in attached format for BHEL/Customer review & approval. Our SQP/Typical MQP/ MQP Format is attached for guidance & use.	
	(ii) MQP shall invariably cover w.r.t Inward inspection including on Raw material Procurement, In process and Final inspection in elaborated way/details.	
	(iii) Bidder shall also to give specific confirmation that on need basis, their competent officials shall visit to BHEL / customer for finalization of Quality plan including test procedure/methodology during preaward / post award approval / detailed engineering in the event of an order.	
	(iv) No deviation on BHEL/Customer approved MQP/ SQP (In case BHEL SQP is provided) is acceptable.	
	(v) Bidder shall agree to submit all cross referred documents other than codes/standards to BHEL/Customer/Consultant.	
	<b>Important Notes shall be included in MQP :</b> (a) Latest revision of Standard s & Specification shall apply. Only International Standards are applicable. (b) Materials shall be procured in compliance to Functional Technical Specification. (c) Inspection shall be in compliance with Approved Quality Control Procedure for the Product. (d) NDT shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME standard. (e) Gauges and measuring Instruments, with valid calibration only shall be used. (f) Cleaning and Painting of products shall be carried out as per Approved Painting Schedule. (g) Finished Products shall be packed to comply with Approved Packing Schedule. (h) Welding shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME standard.	
2	<b>Domestic / Inland Inspection</b> will be carried out by BHEL/BHEL appointed Third Party Inspection Agency (TPIA) / Customer/Customer Appointed Inspection Agency/Consultant. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentation Diagram / Process Flow Diagram / Single Line Diagram) etc. (as applicable).	
3	<b>Inspection Agency for Foreign Bidders and also for Indian Bidder but importing from Foreign Sources:</b> (1) Any one of the following Third Party Inspection Agency (TPIA) shall be appointed by the bidder and same shall be furnished by the bidder in techno commercial bid itself. (2) The details of TPIA with contact details like Name of the official, Phone no, Email id shall also to be submitted during pre/post award. However cost for such inspection agency shall be borne by the bidder only. Inspection charges for such inspection agency shall be indicated separately so that if BHEL/Customer is undertaking the inspection by on their own , then these charges are non claimable by the bidder. <b>List of TPIA</b> 1.M/s Bureau Veritas 2.M/s TUV-Nord 3.M/s TUV-SUD 4.M/s TUV Rheinland 5.M/s Lloyds Register 6.M/s SGS 7.M/s Germanischer Lloyds 8.M/s QUEST 9.M/s Certification Engineers International 10.M/s Intertek 11.M/s IR Class Systems and Solutions 12.M/s DNV 13. M/s Fichtner 14. M/s ABS Inspection Services	



Receipt No : 809418/2022/BAP-QA\_MECH

Sl.No	BHEL / Customer Requirements	## Specific confirmations by the manufacturer (Acceptable/Not acceptable)
4	<b>Stage Inspection during manufacturing Process :</b> Stage Inspection during manufacturing shall be carried out as per approved quality plan and all necessary documents shall be provided for review, verification and clearance for further processing. This inspection call shall be given well in advance (at least 2 weeks before) to TPI/Bidder's own inspection agency to avoid delay in the manufacturing processes.	
5	<b>Inspection before despatch for domestic supplier :</b> Inspection before despatch at supplier's works shall be carried out by BHEL appointed Inspection agency (as in Sl no. 2). Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet .	
6	<b>Inspection at Foreign Source/Supplier:</b> (a) As in sl no: 3. shall be ensured without fail (b) No material / items shall be despatched without getting the written communication from BHEL / Customer inspection carried out by Bidder appointed Third Party Inspection Agency (As per Sl no.3) / Customer/Customer Appointed Inspection Agency/Consultant. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentation Diagram / Process Flow Diagram / Single Line Diagram) etc. (As applicable). Inspection before despatch for Foreign supplier : Inspection before despatch at supplier's works shall be carried out by bidder appointed inspection agencies having international presence at vendors and or vendor's sub vendor works. Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet by TPIA mentioned in Sl no: 03 at supplier's cost.	
7	<b>Painting</b> shall be done strictly as per BHEL/Customer approved painting schedule / scheme only. Paint Thickness / Paint shade shall be ensured as per BHEL / Customer approved painting schedule / specification / data sheet etc. No deviation is acceptable unless otherwise accepted by BHEL/Customer in writing. Any conflict if any among BHEL / Customer approved painting schedule / Spec / data sheet etc. shall be brought to the notice of BHEL well in advance before proceeding including the BOI being procured for assy / skid like motors etc.	
8	Specific conformation for document package in the event of an order (2 Hard copies & soft copy in PDF file) is to be given containing the following with proper linkages (i) Index Sheet (ii) MQP/RQP/Endorsement Sheet (As applicable) (iii) TCs identified by BHEL/ Customer for record for "CHP" / "W" and Verification portion ("V") as given in approved QP. (iv) Final inspection report + TC including Chemical + Mechanical + HT + NDT etc. (v) Third party Inspection report + TC (vi) Customer CHP/ MDCC (vii) Type test / Performance Test reports conducted (viii) Type test / Performance Test approval/ clearance obtained from BHEL/Customer (ix) BOM with As Build Drgs with actual make / rating used with BHEL/customer approved drawings.	
9	<b>Packing / Seaworthy Packing</b> shall be as per BHEL Packing schedule / approved drg / sketch. This shall be ensured to take care transit / handling / transshipment in Road / Sea / Air. Photographs are to be submitted for BHEL review before despatching the material as per contract conditions.	
10	<b>Outsourcing of test facilities:</b> Bidder shall ensure all the testing facilities in house. However If any of the test facilities are not available with successful bidder, then bidder shall ensure the same at NABL accredited third party lab / Govt / Govt Lab for major testing such as NDT, Electrical & Mechanical testing.	
11	<b>Important Note:</b> No deviation on the above requirement 01 to 10 is acceptable with respect to Quality Requirement and those offers not meeting these specific customer requirement is liable for rejection and hence the bidder shall submit all the required documentary evidences in the offer itself.	
12	<b>##</b> Necessarily to be filled up by the bidder at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirement being customer specific requirement.	
VENDOR SIGN AND STAMP:		Vendor Name & Address:

Receipt No : 809418/2022/BAP-QA\_MECH

Manufacturer LOGO	MANUFACTURER'S NAME AND ADDRESS:		MANUFACTURING QUALITY PLAN										
			ITEM : MANUAL & PNEUMATIC BUTTERFLY VALVES(WAFER TYPE) AS PER TECH SPEC: ROS:6339/00 and ROS:4270/01				QP NO.: VALVE:615 REV.NO.: 01 DATE: 07.08.2021 PAGE 2 OF 5		PROJECT: AS PER PO				
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTI CS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C / N				M	C	N	
1.	2.	3.	4.	5.	6.		7.		8.	9. D*	10.	11.	

		Dimensions	Major	Measureme nt	1sample/Si ze/Batch	Mfg. Drg	IR	-	P	V	-	
		Surface Finish	Major	Visual	100%	Mfg. Drg.	No Burrs	IR	√	P	V	-
		Shore Hardness	Major	Measureme nt	1sample/B atch	Drg/Datasheet/Relevan t Standard	TC	√	P	V	-	
		Tensile Strength, Elongation	Major	Measureme nt	1sample/B atch	Drg/Datasheet //Relevant Standard	TC	√	P	V	-	
1.5	Gear(Gear Box)	Chem & Mech Properties	Major	Chemical Analysis	1sample/H eat	Approved Drawing / Mfg.Std	Supplier TC	-	P	V	-	
	As applicable	Torque Test/Mechanic al Advantage	Major	Torque Load Kg	1sample/L ot	Manufacturer Standard/Tech.Specs./ Drg./Datasheet	Supplier TC	√	P	V	-	
		Model	Major	Verification	1sample/L ot	Approved Drawing/ Manufacturer Standard	Supplier TC	√	P	V	-	
2.0	IN PROCESS INSPECTION											

				<b>LEGEND:</b> * RECORDS, IDENTIFIED WITH "TICK" (√) ) UNDER COLUMN 'D' SHALL BE SUBMITTED TO CUSTOMER AS A QA DOCUMENTATION PACKAGE. M: MANUFACTURER/SUB-SUPPLIER, N: END CUSTOMER, C: BHEL/BHEL TPI, P: PERFORM W: WITNESS AND V: REVIEW OF RECORDS CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS W,
Rakesh Kr Madhu, DM/QA	K Renjith (Mgr/QA)	R Arunachalam (DGM-QC & OLI)		
Prepared by	Reviewed by	Approved by	Manufacturer Sign & Seal	

Receipt No : 809418/2022/BAP-QA\_MECH

Manufacturer LOGO	MANUFACTURER'S NAME AND ADDRESS:		MANUFACTURING QUALITY PLAN											
			ITEM : MANUAL & PNEUMATIC BUTTERFLY VALVES(WAFER TYPE) AS PER TECH SPEC: ROS:6339/00 and ROS:4270/01				QP NO.: VALVE:615 REV.NO.: 01 DATE: 07.08.2021 PAGE 3 OF 5		PROJECT: AS PER PO					
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTI CS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C / N					M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9. D*	10.			11.	

2.1	Body & Disc after machining	Dimension	Major	Measureme nt	100%	Mfg.Drg		IR	√	P	-	-	
		Surface Defect of Machined Surface	Major	DPT	100%	Relevant Standard	No Linear Indication	IR	√	P	V	-	
		Body Shell Strength	Major	Hydro Test	100%	Relevant Standard	No Leakage	Test Report	√	P	V	-	
2.2	Drive & Stub Shafts	Dimension	Major	Measureme nt	100%	Mfg.Drg		IR	-	P	-	-	
		Surface Finish	Major	Visual	100%	Mfg.Drg	No burrs	IR	√	P	-	-	
		Surface Defects	Major	DPT	100%	Relevant Standard	No Linear Indication	IR	√	P	V	-	
3.0	<b>FINAL INSPECTION</b>												
3.1	Completed Valve with Actuator & Access.	Visual & Dimension	Major	Measureme nt	100 %	@ @	Drawing/Data Sheet/Relevant Standard	TC/IR	√	P	W	-	

				<b>LEGEND:</b> * RECORDS, IDENTIFIED WITH "TICK" (√ ) UNDER COLUMN 'D' SHALL BE SUBMITTED TO CUSTOMER AS A QA DOCUMENTATION PACKAGE. M: MANUFACTURER/SUB-SUPPLIER, N: END CUSTOMER, C: BHEL/BHEL TPI, P: PERFORM W: WITNESS AND V: REVIEW OF RECORDS CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS W,
Rakesh Kr Madhu, DM/QA	K Renjith (Mgr/QA)	R Arunachalam (DGM-QC & OLI)		
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Manufacturer LOGO	MANUFACTURER'S NAME AND ADDRESS:		MANUFACTURING QUALITY PLAN										
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SL. NO	COMPONENT & OPERATIONS	CHARACTERISTI CS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C / N				M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9. D*	10.			11.

3.2	a)Shell Tightness Test b)Seat Tightness test	Critical	Hydro Test			Relevant Standard	No Leakage	TC	√	P	W	-	
3.3	Disc Strength Test	Critical	Hydro Test	01 No/ Size.		Relevant Standard	No Permanent Deformatio n	TC	√	P	W	-	
3.4	Functional Test  Smooth operation, Manual Open/ Close.	Critical	Operation(3 Times Open/Close)	100 %	@ @		Data Sheet/Drawing	TC	√	P	W	-	
3.5	Counter Flange	Visual & Verification	Major	Visual & Measure	100 %	-	Technical Spec./ Drawing	IR	√	P	-	-	
3.6	Painting	Paint Appearance, Thickness & Adhesion	Major	Visual & Measure	100 %	100 %	Tech Spec/App Drawing	IR	√	P	V	-	

				<b>LEGEND:</b> * RECORDS, IDENTIFIED WITH "TICK" (√) ) UNDER COLUMN 'D' SHALL BE SUBMITTED TO CUSTOMER AS A QA DOCUMENTATION PACKAGE. M: MANUFACTURER/SUB-SUPPLIER, N: END CUSTOMER, C: BHEL/ BHEL TPI, P: PERFORM W: WITNESS AND V: REVIEW OF RECORDS CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS W,
Rakesh Kr Madhu, DM/QA	K Renjith (Mgr/QA)	R Arunachalam (DGM-QC & OLI)		
Prepared by	Reviewed by	Approved by	Manufacturer Sign & Seal	

Manufacturer LOGO	MANUFACTURER'S NAME AND ADDRESS:		MANUFACTURING QUALITY PLAN										
			ITEM : MANUAL & PNEUMATIC BUTTERFLY VALVES(WAFER TYPE) AS PER TECH SPEC: ROS:6339/00 and ROS:4270/01				QP NO.: VALVE:615 REV.NO.: 01 DATE: 07.08.2021 PAGE 5 OF 5		PROJECT: AS PER PO				
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTI CS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
					M	C / N				M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9. D*	10.			11.

3.7	Marking	Name Plate/Flow Direction Indication	Major	Visual	100 %	-	Drawing	-		P	-	-	
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@@ 10% of each size.

#### Notes:


1. Normal Probe of 2MHz frequency and 20mm diameter shall be used. With this probe the Back Wall Echo(BWE) in sound area shall be set at 100% FSH (Full screen height). At this gain setting and defect Echo  $\geq 20\%$  FSH is not acceptable. Also loss of BWE  $> 20\%$  FSH is not acceptable.
2. Positive Material identification for Alloy/SS materials like body, seat, fasteners etc. to be carried out. The Quantum of check shall be 10 % of the offered quantity (Each size) or Min 2 Numbers of valve of each size whichever is higher.
3. No weld repair is allowed on cast iron castings .only Mechanical properties required for CI /SGI castings.

#### RECORD OF REVISION

Rev no	Date	Description
00	26.09.2020	Original Issue – First submission
01	07.08.2021	Revised Based on customer comments.

			<b>LEGEND:</b> * RECORDS, IDENTIFIED WITH "TICK" (✓) ) UNDER COLUMN 'D' SHALL BE SUBMITTED TO CUSTOMER AS A QA DOCUMENTATION PACKAGE. M: MANUFACTURER/SUB-SUPPLIER, N: END CUSTOMER, C: BHEL/BHEL TPI, P: PERFORM W: WITNESS AND V: REVIEW OF RECORDS CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS W,
Rakesh Kr Madhu, DM/QA	K Renjith (Mgr/QA)	R Arunachalam (DGM-QC & OLI)	
Prepared by	Reviewed by	Approved by	




Manufacturer Sign & Seal


	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> <b>TIRUCHIRAPPALLI - 620014</b>	<b>QA:CI:STD:QP:42</b> Rev: 04    Page: 1 of 4
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## CONTROLS AND INSTRUMENTATION/QA/FB

### STANDARD QUALITY PLAN FOR

### PNEUMATIC ACTUATOR (POWER CYLINDER) (OPEN / CLOSE AND REGULATING TYPE)


REV	DATE	PREPARED	REVIEWED	APPROVED	REVISION HISTORY
00	14/05/1993	Sd/-	Sd/-	Sd/-	Initial release.
01	16/06/1997	Sd/-	Sd/-	Sd/-	Format Revised.
02	21/06/2002	Sd/-	Sd/-	Sd/-	Department name changed, CTQ requirements added & General revision.
03	08/01/2004	Sd/-	Sd/-	Sd/-	Revised to include the Comments/ Feedback of internal discussion.
04	14/09/2010	RM.VAIRAVAN 	N.SRIDHAR 	K.PALANIVEL 	Format Changed. Revised as per Feedbacks from QC and Engineering during discussion.

	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> <b>TIRUCHIRAPPALLI - 620014</b>	<b>QUALITY PLAN FOR</b> <b>PNEUMATIC ACTUATOR (POWER CYLINDER)</b> <b>(OPEN / CLOSE AND REGULATING TYPE)</b>	<b>QA:CI:STD:QP:42</b> Rev: 04      Page: 2 of 4
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Sl. No	Component & Operation	Characteristics	Class	Type of Check	Quantum of check		Ref Doc. & Acceptance STD	Format of record	AGENCY			Remarks
					M	B/C			M	B	C	
A	RAW MATERIALS & BOUGHT OUT ITEMS INSPECTION											
01	Cylinder Piston rod	a. Material	Critical	CHEM	One of sample	-	Specification, BS 970	TC	V	V	-	
		b. Dimension	Critical	MEAS	-do-	-	Mfr. Std.	IIR/LGB	P	-	-	
02	“ O “ ring	a. Material	Critical	CHEM	-do-	-	Specification	TC	V	V	-	
		b. Dimension	Critical	MEAS	-do-	-	Mfr. Std.	IIR/LGB	P	-	-	
		c. Hardness	Critical	MEAS	-do-	-	-do-	TC	V	V	-	
03	Cylinder Barrel & End Cover	a. Material	Critical	CHEM	-do-	-	Specification	TC	V	V	-	
		b. Dimension	Critical	MEAS	-do-	-	Mfr. Std.	IIR/LGB	P	-	-	
04	Piston Cylinder	a. Pressure Resistance Test	Major	PHYS	-do-	-	JIS B 8377	IIR/LGB	P	V	-	
05	Air filter Regulator	a. Make & Type	Major	PHYS	100%	-	Specification, Data Sheet	IIR/LGB	P	-	-	
		b. Output Gauge range	Major	PHYS	-do-	-	Specification	IIR/LGB	P	-	-	
		c. Process connection Size	Major	MEAS	-do-	-	-do-	IIR/LGB	P	-	-	
		d. Filter size in Microns	Major	PHYS	-do-	-	-do-	TC	V	V	-	
06	Limit Switches	a. Make & Type	Major	PHYS	-do-	-	Specification, Data Sheet	IIR/LGB	P	-	-	
		b. Functional check	Major	ELEC	-do-	-	Mfr. Std.	IIR/LGB	P	-	-	
07	Air Lock Relay	a. Make & Type	Major	PHYS	-do-	-	Specification	IIR/LGB	P	V	-	
		b. Functional check	Major	ELEC	-do-	-	Mfr. Std.	IIR/LGB	P	-	-	
08	Solenoid valve (Applicable Only for open / close)	a. Make & Type	Major	PHYS	-do-	-	Specification, Data Sheet	TC	P	-	-	
		b. Coil Voltage	Major	MEAS	-do-	-	-do-	TC	P	-	-	
		c. Class of Insulation	Major	PHYS	-do-	-	-do-	TC	P	-	-	
		d. Duty	Major	VISU	-do-	-	Mfr. Std.	TC	P	-		
		e. Functional check	Major	ELEC & MECH	-do-	-	-do-	IIR/LGB	P	-	-	
09	Positioner (Applicable only for regulating power Cylinder)	a. Make & Type	Major	VISU	-do-	-	Data Sheet	IIR/LGB	P	-	-	Performance to be checked during complete assembly testing

M- MANUFACTURER/ SUB-VENDOR; B - BHEL / TPI ; C - CUSTOMER / TPI

P - PERFORM; W - WITNESS V - VERIFICATION;


	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> <b>TIRUCHIRAPPALLI - 620014</b>	<b>QUALITY PLAN FOR</b> <b>PNEUMATIC ACTUATOR (POWER CYLINDER)</b> <b>(OPEN / CLOSE AND REGULATING TYPE)</b>	<b>QA:CI:STD:QP:42</b> Rev: 04      Page: 3 of 4
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Sl. No	Component & Operation	Characteristics	Class	Type of Check	Quantum of check		Ref Doc. & Acceptance STD	Format of record	AGENCY			Remarks
					M	B/C			M	B	C	
B	INPROCESS INSPECTION											
01	Complete Assembly	a. Functional check	Major	PHYS & ELEC	100%	-	Mfr. Std.	IIR/LGB	P	-	-	
		b. Leak test	Major	PHYS	-do-	-	JIS B 8377	IIR/LGB	P	-	-	
C	FINISHED PRODUCT INSPECTION											
01	Routine Test	a. No Load test	Major	PHYS	100%	20%	Mfr. Std.	IIR/LGB	P	W	-	
		b. Verification of Mounting of Accessories	Major	VISU	-do-	-do-	BHEL App. Drg.	IIR/LGB	P	W	-	
		c. Dimensional check including Process connections	Major	MEAS	-do-	-do-	BHEL App. Drg.	LGB	P	W	-	
		d. Verification of name plate for Type & Model Number	Major	VISU	-do-	-do-	BHEL App. Drg.	IIR/LGB	P	W	-	
		e. Stroke length & Time	Major	MEAS	-do-	-do-	Spec. & BHEL App. Data Sheet	IIR/LGB	P	W	-	
		f. Verification of accessories (Make and Model number)	Major	VISU	-do-	-do-	Spec. & BHEL App. Data Sheet	IIR/LGB	P	W	-	
		g. Performance test (Sensitivity, Hysterisis, Accuracy, Repeatability) Applicable for Regulating duty	Major	MEAS	-do-	-do-	Specification	IIR/LGB	P	W	-	
		h. Stay put device Operation	Major	PHYS	-do-	-do-	Mfr. Std.	IIR/LGB	P	W	-	
		i. Solenoid valve – Coil voltage rating, Insulation & duty (Applicable only for open/ close duty)	Major	VISU & ELEC	-do-	-do-	BHEL App. Data Sheet	IIR/LGB	P	W	-	
		j. Air Filter- Filter Element size in microns	Major	VISU	-do-	-do-	Specification	IIR/LGB	P	W	-	
02	Type Tests	a. Load operation test	Major	PHYS	One of sample	One of sample	Mfr. Std.	TC	P	V	-	
		b. Durability test	Major	PHYS	-do-	-do-	JIS B 8377	TC	P	V	-	

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P - PERFORM; W - WITNESS V - VERIFICATION;



	<b>BHARAT HEAVY ELECTRICALS LIMITED</b> <b>TIRUCHIRAPPALLI - 620014</b>	<b>QUALITY PLAN FOR</b> <b>PNEUMATIC ACTUATOR (POWER CYLINDER)</b> <b>(OPEN / CLOSE AND REGULATING TYPE)</b>	<b>QA:CI:STD:QP:42</b> Rev: 04      Page: 4 of 4
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<p><b>D.NOTES:</b></p> <p><b>1.LEGENDS:</b></p> <table><tr><td>MECH</td><td>:</td><td>Mechanical</td><td>MEAS</td><td>:</td><td>Measurement</td></tr><tr><td>ELEC</td><td>:</td><td>Electrical</td><td>TC</td><td>:</td><td>Test certificate</td></tr><tr><td>TR</td><td>:</td><td>Test Report</td><td>CHEM</td><td>:</td><td>Chemical</td></tr><tr><td>VISU</td><td>:</td><td>Visual</td><td>IIR</td><td>:</td><td>Internal Inspection Report</td></tr></table> <p>2. The vendor shall arrange all testing facilities at their works. Tests for which facilities are not available are to be carried out at recognized National Test Houses like ETDC/CIL/NPL/ERTL etc., at vendor cost.</p> <p>3. Through Log Book / any other documents available at the vendor's works, it shall be possible to correlate the finished products with raw material and in process stage checks / inspection carried out.</p> <p>4. All Measuring and Testing Instruments shall be periodically calibrated from recognized test houses &amp; certificates made available during inspection for verification.</p>	MECH	:	Mechanical	MEAS	:	Measurement	ELEC	:	Electrical	TC	:	Test certificate	TR	:	Test Report	CHEM	:	Chemical	VISU	:	Visual	IIR	:	Internal Inspection Report	<p>5. Test reports for routine tests are to be furnished by the vendor.</p> <p>6. Type test certificate shall not be earlier than 5 years from the date of Purchase enquiry.</p> <p>7. Vendor to give tentative inspection program in advance and confirm exact date two weeks in advance for arranging BHEL's inspection.</p> <p>8. Packing shall be as per the "PACKING PROCEDURE "indicated in the specification.</p> <p><b>E. REFERENCE STANDARDS:</b> (For Indicated Standards Refer the Latest Version)</p> <table><tr><td>JIS B 8377</td><td>:</td><td>Specification for Pneumatic Cylinder</td></tr><tr><td>BS 970</td><td>:</td><td>Specification for Wrought Steel for Mechanical end</td></tr></table>	JIS B 8377	:	Specification for Pneumatic Cylinder	BS 970	:	Specification for Wrought Steel for Mechanical end
MECH	:	Mechanical	MEAS	:	Measurement																										
ELEC	:	Electrical	TC	:	Test certificate																										
TR	:	Test Report	CHEM	:	Chemical																										
VISU	:	Visual	IIR	:	Internal Inspection Report																										
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SQP42R4.DOC

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P - PERFORM; W - WITNESS V - VERIFICATION;



Ref :INSP:CHK:001/ REV 00  
DT:10/08/2020

## Inspection document Check List

Inspection documents to be submitted after inspection of the items for getting dispatch clearance. Vendor shall provide documents to the BHEL/BHEL TPIA inspector during inspection and TPIA shall sign all the documents.

The document dossier shall contain following.

SL no.	Documents
1	Unpriced PO COPY.
2	Latest approved specification, datasheet, drawing, P&ID, test procedures, approved painting schedule, Packing etc.
3	Approved QAP.
4	CQIR Report (Disposal code should be Accepted all the offered QTY)
5	<p>As per approved QAP all the inspection documents to be submitted.</p> <p><b>Indexing of the reports as per QAP and each page wise numbered and correlated to QAP.</b></p> <p><b>If more than one test in each page, against each test the clause number of QAP to be mentioned.</b></p> <p>Inspection clause shall be mentioned against each test.</p> <p>1. Raw Material Test Certificates (NABL approved Lab TC/Manufacturer TC like Mechanical properties, Chemical Properties, UT etc. as per approved QAP.</p>

K. Kovarthan

கி. கோவர்தன்  
கி. கோவர்தன் / K. KOVARTHANAN  
பரிசுட் இன்ஜினியர் / Sr. Engineer  
கualitY இன்ஜினியர் / Quality Department  
BHEL R&D RANIPET-3



	<p>2. In process Inspection Reports like Hydro test, Dimension Report, MPI,UT ,Balancing etc. as per approved QAP.</p> <p>3. Final Inspection Reports like Shop Assembly with testing reports, Hydro test/Leak / Pressure test reports, Type test Reports, WPS/PQR/WPQ Reports, PT/RT/UT/MT Reports etc. as per approved QAP.</p> <p>4. Final Inspection like packing and surface preparation &amp; Painting/Metal finishing reports. (Sea worthy packing / Special Packing requirement).</p>
6	Relevant pages of standard shall be attached with report.
7	Calibration reports of the instruments used to be signed by TPI after verification.
8	Above said documents are should be in single .pdf file with not more than 10MB (if more than 10MB can be split into multiple files)
9	Hard copy of the same to be submitted along with material dispatch.

*K Kovarthanan*

**K KOVARTHANAN**

கா. கோவர்த்தன / K. KOVARTHANAN  
 वरिष्ठ इंजीनियर / Sr. Engineer  
 गुणवत्ता विभाग / Quality Department  
 बीएचएल राणीपेट, राणीपेट, BHEL BAP, RANIPET-8  
**DM/QC PROC**  
**BHEL RANIPET**