

OPEN TENDER CHECKLIST

SUPPLY OF PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES

FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT

Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT 36983)

Sl. No.	Document Name	Vendor Confirmation (Signed copy to be submitted along with Techno Commercial Offer)
01	Annexure A COVERING LETTER	Submitted ☐ Not Submitted ☐
02	Annexure B GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS)	Submitted ☐ Not Submitted ☐
03	Annexure C, COMMERCIAL TERMS AND CONDITIONS	Submitted ☐ Not Submitted ☐
04	Annexure D PRICE OFFER FORMAT	Submitted ☐ Not Submitted ☐
05	Annexure E SPECIFICATION DEVIATION DISPOSITION REPORT	Submitted ☐ Not Submitted ☐
06	Annexure F CEBG	Submitted ☐ Not Submitted ☐
07	Annexure G Online SRF	Submitted ☐ Not Submitted ☐
08	Annexure H INTEGRITY PACT	Submitted ☐ Not Submitted ☐
09	TECHNICAL SPECIFICATION ROS:6206 REV 00 DATED 07.02.2018	Submitted ☐ Not Submitted ☐
10	PROCESS FLOW DIAGRAM 3 WT 220 00829 REV 00	Submitted ☐ Not Submitted ☐
11	UF SHED LAYOUT 3 WT 220 00828 REV 01	Submitted ☐ Not Submitted ☐
12	QUALIFICATION REQUIREMENT ANNEXURE A	Submitted ☐ Not Submitted ☐



Bharat Heavy Electricals Limited

Boiler Auxiliaries Plant
RANIPET – 632 406, Tamil Nadu, India
Purchase Department - Desalination

ANNEXURE - A

Open Tender for Supply of PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES FOR PRODUCING : 2400 CUM/HR NET PERMEATE FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT

Enquiry No. 7771581E Dated 08-FEB-18 (NIT_36983)

Due on: 22-FEB-18

To All [Manufacturers only](#).

Dear Sir,

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

Requirement with Delivery date-FOR SUPPLY:

Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
001	RWT706200001 UF SYSTEM CONSISTS OF PRESSURIZED UF MEMBRANE MODULE SKIDS /T RAINS FOR PRODUCING 2400 CUM/HR. NET PERMEATE. EACH KID / TRAIN CONSISTS OF UF MEMBRANES, MODULE BODY, SUPPORTS OF MODULES, FRAME, APP. HEADERS & ACCESSORIES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.	ST.	1.00	10/06/2018
002	RWT706200002 MANDATORY SPARES FOR UF MEMBRANES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018. Clause No. 8.0 <i>(1 Set of Mandatory Spares consist of 10% of total Installed Membrane modules)</i> <i>The Bidder should also indicate if any spare(s) other than those indicated in the spec is/are required.</i> <i>The Mandatory spares List and the individual price should be indicated.</i>	ST.	1.00	10/06/2018
003	RWT706200003 DIRECT INTEGRITY TEST KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.	ST.	1.00	10/06/2018
004	RWT706200004 FIBRE REPAIR KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.	ST.	1.00	10/06/2018



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Requirement with Delivery date-FOR SERVICES:

Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
006	RWT706200005 SUPERVISION OF ERECTION, COMMISSIONING & PG TEST AS PER SL. NO. 10 OF AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018. (SUPERVISION OF ERECTION, COMMISSIONING & PG TEST for maximum of Thirty man-days (comprising 6 - 8 visits & excluding travels days, Sunday & holidays) at NTECL - VALLUR site. Vendor to include travel to & fro charges, lodging, local conveyance etc., for the above.) ALSO VENDOR TO PROVIDE BREAK-UP PRICE FOR THE TECHNICAL ADVISORY SERVICES.	ST.	1.00	Based on BHEL Request Basis

Enquiry Sl. No.	Description & material Code	Unit	Qty.	Delivery Date
OPTIONAL PRICE	RECOMMENDED SPARES FOR 3 YEARS O & M Supplier has to submit the list of spares with breakup details. Price validity of 2 Years from the date of Ordering of Main Supply. NOTE: THIS ITEM WILL BE ORDERED IF REQUIRED ONLY AND THIS ITEM WILL NOT BE CONSIDERED FOR ARRIVING RANKING	SET	1.00	Ordered later if required
OPTIONAL PRICE	TECHNICAL ADVISORY SERVICES FOR ADDITIONAL VISIT (ONE VISIT CONSIST OF MINIMUM THREE DAYS EXCLUDING TRAVELS AND SUNDAY & HOLIDAYS) WHICH INCLUDE TRAVEL TO & FRO CHARGES, LODGING, LOCAL CONVEYANCE ETC. ALSO VENDOR TO PROVIDE BREAK-UP PRICE FOR THE ADDITIONAL VISIT. NOTE: THIS ITEM WILL BE ORDERED IF REQUIRED ONLY AND THIS ITEM WILL NOT BE CONSIDERED FOR ARRIVING RANKING	DIEM	1.00	Ordered later if required



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

PLEASE REFER TO,

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

TECHNICAL ENCLOSURES AS PER FOLLOWINGS:

- 1) TECHNICAL SPECIFICATION FOR ULTRA FILTRATION SYSTEM (PRESSURIZED SYSTEM) - ROS:6206 REV 00 DATED 07.02.2018
- 2) TYPICAL UF SKID ARRANGEMENT
- 3) QUALIFICATION REQUIREMENT ANNEXURE B TO SPECIFICATION ROS 6206 REV 00,
- 3) PROCESS FLOW DIAGRAM - 3 WT 220 00829 REV 00,
- 4) UF SHED LAYOUT - 3 WT 220 00828 REV 01,

Important Instruction to Bidders:

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

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

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

IMPORTANT NOTE:

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

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

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



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BIDS SHALL BE SUBMITTED THROUGH E-PROCUREMENT PORTAL, <https://bheleps.buyjunction.in> OF M/s mJUNCTION SERVICES LIMITED WHO ARE OUR SOLUTION PROVIDER.

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

2A) TIME IS THE ESSENCE OF CONTRACT.

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

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

2D) THE LD CEILING WILL BE 10 %.

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

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

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

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

**A] Submission of Offer**

**a) Invitation for bid**

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

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

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

Bids shall be submitted through e-Procurement portal, <https://bheleps.buyjunction.in>, of M/s mJunction Services Limited who are our solution provider.

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

Requirement for participating in e-Procurement is as under:

- i) A Computer with internet connectivity (Internet Explorer Version 9 and above).
- ii) Digital Signature Certificate (Class 3- SHA2-2048 BIT- with both Signing and Encryption component separately).
- iii) JAVA (Version 1.8 Update 45).

**c) Instructions for Registered Suppliers**

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

In case of open tenders, Registered suppliers with registered DSC will have to login with their user id/password & DSC and search for the Open Tender. On clicking the “Interest” button, they will get attached to that particular Open Tender.

Registered suppliers without DSC will have to first register themselves in <https://bheleps.buyjunction.in> as new supplier by clicking the “New Supplier” button.

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

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

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

After entering the Income Tax Permanent Account Number (PAN) details and pressing “Enter”, they have to click the “Interested” button against the respective BHEL Unit for which they want to participate in the Open Tender and also fill up other relevant Company information as a one-time activity.

Then, a box for filling in a “preferred login id” will appear at the top of the page. After giving the “preferred login id” and then clicking the “Next” button, Supplier would have to map their DSC (which will be activated by M/s mJunction Services Limited), if available. Or else, by pressing “skip” button and selecting relevant procurement category from the list available in the next page and “agreeing” to the BHEL’s terms &

conditions, user id and password will be generated/activated once in 2 hours and mailed to their registered email id. Using this user id and password, Supplier has to login and map the Digital Signature Certificate they have purchased to their code. The DSC will then be activated by M/s mJunction Services Limited.

As required by the tender, the necessary documents have to be filled-in online, in the provided template. Additional documents required are to be scanned and uploaded as .pdf file. Suppliers are advised to take note that the maximum space that is provided for uploading the documents that are to be attached is 300 MB. However the size of an individual document cannot exceed 10 MB. For any clarification on submission of offer on line, attention of the Supplier/s is invited to our document “Supplier Manual” hosted in the home-page of the e-procurement portal. During normal business hours, helpline maintained by the service provider mJunction is available for clarifying any doubts of supplier/s. The helpline numbers are 09840704941 or 09500199108.

**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
- f) **Supporting documents** to substantiate equivalent material specifications / sections, where quoted for.
- g) 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.
- 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.

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.**

**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.

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

**Caution:**

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

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

**Note**

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

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

(iii) In case, there is a discrepancy in the term quoted in techno-commercial bid and price bid, the term as per the techno-commercial bid (Part I) shall hold good and the commercial term quoted in the Price Bid (Part II) shall not be considered.

(iv) In their own interest, all Tenderers are advised to double check their prices, applicable duties and taxes.

(v) The quotation should be valid at least for a period of 90 days from the tender opening date.

(vi) Indian bidders should submit the prices in Indian Rupees only.

(vii) Foreign bidders may submit their bid in foreign currency. The currency for quoting shall be selected from the drop-down menu provided.

(x) Indian Suppliers shall quote on FOR Destination basis only. Destination is BHEL, Ranipet Stores or BHEL Project Site as specified in the tender requirement. Foreign Suppliers shall quote on CFR Chennai Seaport Delivery and Insurance will be in BHEL's scope. No other delivery terms shall be acceptable. Shipment shall be arranged by the Seller on *Liner in / Liner out basis*. As per Government of India guidelines, BHEL Ranipet being a Government of India Undertaking the Bill of Lading shall be made with the Shipper as "Government of India". This shall be specifically confirmed by the Bidder.

(xi) Where the cargo is containerized, Container washing charges, stuffing charges and / or any other such charges would be to the account of the supplier, where the containers are to be stuffed at the works of the supplier.

## **B) Opening of Offers**

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

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

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

## **Note**

(i) Bids including all enclosures and supporting documents like catalogues, pamphlets, etc., shall be provided in ENGLISH language only.

(ii) In exceptional circumstances, at its option, BHEL may consider extending the due date/s for the tender openings for reasons such as (but not limited to) paucity of offers etc. However, sufficient notice would be given by BHEL for such extension.

(iii) Deviations shall be summarized and provided in a "Deviation Statement", listing the points and the deviation against each point.

(iv) BHEL reserves the right to increase or decrease the tendered quantity and to order on more than one vendor at the lowest acceptable price to BHEL. In ordering on more than one source, the ratio of quantity split will be as specified in the tender terms.

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

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

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

(v) Offers for part quantities on item level basis are not acceptable to BHEL. While tenderers can quote for some or all the tendered items, no supplier shall quote for partial quantity of any given enquiry item. Such

partial offer would not be considered in the enquiry for that item. Suppliers are to note that the evaluation unless otherwise specified will be on item level and not for the tendered items as a whole.

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

- a) The price bids including the impact price (if any) of the technically acceptable offers alone shall be opened.
- b) Offers with pre-conditions (like conditional discounts) for price are liable to be not considered / rejected. For evaluation such conditions would be removed and only the base offer would be considered for evaluation and comparison.
- d) In the event of any change in scope / quantity arising out of the discussions, offerers would be given a chance to submit their revised offer / Impact bids. The option for the revised offer / impact offer will be triggered by BHEL. The Supplier then will have the facility to feed-in the revised price / impact price as per the provision given by BHEL. The impact price can be positive or negative (or nil). The impact price option shall contain only the price addition / deletion for such change in the scope / quantities, over and above the original scope and price quoted. The original price quoted would remain unchanged. The total price would then be computed by the arithmetic addition of the original price and the impact price. Where BHEL gives the option of submitting the revised offer, the impact would be computed as the arithmetic difference of the revised price and the original price.
- e) For evaluating the overseas offers, CFR Chennai Sea Port price quoted will be taken into account. The cost to BHEL will be arrived at by loading the applicable customs duty project wise, insurance charges, inland transportation charges to BHEL stores and LC charges etc.,
- f) Deleted.
- g) BHEL reserves the right to reject without assigning any reasons / load any offer with factors other than already specified for such offers having deviations to BHEL Specifications, Standard Terms & Conditions at its discretion. The decision of BHEL in this regard shall be final.
- h) BHEL reserves the right to reject an offer due to unsatisfactory past performance during tender finalisation / execution of a contract at any of BHEL projects / units or if unsatisfactory performance report is received from the party/s referenced by the supplier at any time during tender finalisation.
- i) BHEL reserves the right to operate Purchase / Price preference to Government of India Undertakings, which shall be given as per the guidelines of Government of India given from time to time and / or relax the Terms and Conditions of the tender.
- j) For the purpose of comparing prices, tender prices shall be converted to Indian rupees and the conversion shall be made by using the TT Selling rate of State Bank of India (SBI) prevailing on the date of opening of Techno-Commercial / Unpriced bids. If the relevant day happens to be a bank holiday, then the forex rate as on the previous bank (SBI) working day shall be taken. This exchange rate will be followed till placement of order. Tenderers may please note that even if an impact price is taken as in (d) for purpose of price evaluation and arriving at the rank; the exchange rate will be taken as explained above.
- k) Unless otherwise specified, evaluation will be on individual line item basis only and ordering will be on respective L1 vendors.

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

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

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

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

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

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

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

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

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

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

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

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

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

k) Terms of payment:

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

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

l) NOTE:

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

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

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

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

For approved suppliers, in case of any change in the MSE status, it shall be the responsibility of the Bidder to notify the change as a part of the Bid document. If at a later date it comes to the knowledge of BHEL, Ranipet that the change in the status has not been intimated by the Bidder and the order is obtained under the premise of an MSE then BHEL would cancel the pending order against this tender and take necessary steps

for suspension of the business dealing with the Bidder as per the procurement policy of BHEL. Similarly if a supplier claims MSE status after the Part I bid opening, then the same would not be considered in the tender.

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

Other concessions for MSEs / Reserved sectors

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

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

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

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

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

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

**E] Liquidated Damages Clause:**

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

#### **F) Miscellaneous**

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

BHEL will deal directly with indigenous manufacturers only.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

a) Signed Commercial invoice in quadruplicate, for a value not exceeding the draft amount, quoting the import Licence No and certifying goods evidencing shipment of the merchandise are as per Applicant's Purchase Order. The amount of invoice after deducting Indian Agent's commission, if any, should not exceed the Credit amount. (The Indian agent's commission, if any, is payable in India in Indian rupees only.)

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

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

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

**v) Conditions for transportation:**

- a) All shipping documents shall show the Purchase Order Number & Date, Import Licence Number & Date, and Letter of Credit Number & Date.
- b) Transshipment is to be avoided.
- c) Loading on deck is not permitted. The transport document must not contain a provision that goods may be carried on deck.
- d) A transport document which is produced or appearing to have been produced by reprographic, automated or computerized systems or as carbon copy will be accepted as an original document provided that it is marked as original and is ink-signed.
- e) The transport document must contain all the conditions of carriage on the original document.
- f) The transport document must not indicate the place of destination as being different from the port of discharge.
- g) The transport document must not contain the indication 'intended' or similar qualification in relation to the vessel or other means of transport or port of loading or port of discharge.
- h) The transport document must be issued by the carrier or his agent and not by any freight forwarder.
- i) Transport documents bearing reference by stamp or otherwise, to costs additional to the freight charges are not acceptable.
- j) The Bills of Exchange must be dated and presentation of documents for negotiation must not be later than 15 days after the date of shipment and in any case not later than the expiry date of the Credit.
- l) Indian suppliers shall dispatch the materials on freight prepaid and on door-delivery basis (FOR Destination – Destination: BHEL Stores) and
- m) In the event there is a delay by the Supplier in negotiating / submitting the document, any demurrage / wharfage arising out of the same shall be to the account of the Supplier and shall be deducted from the final payment. Also, in such cases, the Supplier shall authorize the Steamer / Shipping agent / transporter to freely release the consignment to BHEL by providing a “Surrender Bill of Lading”. Over-seas Suppliers have to give a No-Objection Certificate to BHEL, authorizing BHEL to get the Delivery Order from the Steamer Agent without producing the Original Bill of Lading. This is required to ensure avoidance of incidence of demurrage at Chennai Sea-port that may arise in case of delayed presentation of documents by the Seller.

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

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

*2. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit ‘Process compliance form’ (to the designated service provider) as well as ‘Online sealed bid’ in the Reverse Auction. Non-submission of ‘Process compliance form’ or ‘Online sealed bid’ by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for “Suspension of Business Dealings with Suppliers/ Contractors (as available on [www.bhel.com](http://www.bhel.com)).”*

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

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

10. At the end of Reverse Auction event, the lowest bidder value will be known on auction portal.
11. The lowest bidder has to fax/e-mail the duly signed and filled-in prescribed format for price breakup including that of line items, to the Service provider within two working days of Auction without fail.
12. Bidders are be required to read the “Terms and Conditions” section of the auctions site of Service provider, using the Login IDs and passwords given to them by the service provider before reverse auction event. Bidders should acquaint themselves of the „Business Rules of Reverse Auction“, which will be communicated before the Reverse Auction.
13. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines, shall be initiated by BHEL and the results of the RA scrapped/ aborted.
14. The Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party.
15. The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with their offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, would also be opened after the RA and the order will be placed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. It is considered that the bidder having submitted their offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rate/s.
16. If it is found that L1 bidder has quoted higher in the online sealed bid in comparison to the envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on [www.bhel.com](http://www.bhel.com)).”
17. The calculation sheet e.g. excel sheet (which will help to arrive at ‘Total Cost to BHEL’) will be communicated to respective bidders of RA by BHEL. In line with the NIT terms, BHEL will provide the calculation sheet (e.g., EXCEL sheet) which will help to arrive at “Total Cost to BHEL” like Packing & forwarding charges, Taxes and Duties, Freight charges, Insurance, Goods & Services Tax (GST) and loading

factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the bidder to enable them to fill-in the price and keep it ready for keying in during the Auction.]

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

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

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

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

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

a) Lowest online sealed bid and

b) Internal Estimate of BHEL

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

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

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

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

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

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

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

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

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

a) In cases where the start price is (a) estimate or (b) one decrement (maximum) lower than the lowest of the online sealed bids and no bidder accepts the start price.

- b) In cases where the number of online sealed bids are less than four before removal of highest bidder.
- c) In cases of tie among H1 bidders, even after extension of submission of online sealed bids once by 15 minutes.
- d) Wherever, the evaluation is done for individual line items, RA shall be treated as failed only for those line item(s) for which any of the above a), b) or c) satisfies.
29. In cases of failure of RA, sealed envelope price bids (of item(s) for which RA has failed) of all the techno-commercially qualified bidders would be opened and the tender would be processed accordingly. However, the envelope sealed bid(s) of techno-commercially acceptable bidder(s) who had agreed to participate in the RA and had failed to submit the online sealed bid would not be opened.
30. After declaring L1 upon completion of RA, the envelope sealed price bid of L1 bidder would also be opened for placement of order on lower of the two bids (RA closing price & envelope sealed price) and the offers would be processed as per extant their internal Purchase/ Works policy provisions of BHEL. Action as per NIT terms would be taken if online sealed bid is higher than the envelope sealed bid.
31. Relative position of bidders (for usage in cases of predefined splitting the quantities) would also include bidders who have given 'online sealed bids' but have not given further bids in auction. In case of splitting requirement, H1 bidder may be considered for counter offer if the pre-stated (NIT) numbers of suppliers do not accept the counter offer. However, principle of splitting to N-1 bidder would be maintained.
32. In case H1 bidder happen to be MSE and was removed from further bidding but is within L1 + 15% band, then this bid would be considered and to be processed in line with 'Public Procurement Policy for Micro & Small Enterprises (MSEs) order, 2012'.
33. For providing preference to domestically manufactured Electronic Products, in accordance with Department of Electronics and Information Technology (DeitY) Gazette Notification No. 33(3)/2013-IPHW dated 23.12.2013 and its related notifications issued from time to time, H1 bidder removed from further bidding would be considered for counter-offer to meet domestic bidder requirement for the item(s) under procurement.
34. In case BHEL decides not to go for Reverse Auction for the tender enquiry, the Price bids and price impacts, if any, already submitted and available with BHEL would be opened as per BHEL's standard practice.
35. In case of enquiry through e-Procurement, the sealed electronic price bid (e-bid) would be treated as sealed envelope price bid.

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

## **H] Force Majeure**

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

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

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

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

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

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

#### **Performance Bank Guarantee**

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

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

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

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

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

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

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

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

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

#### **L] Others**

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

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

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



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

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

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

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

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

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

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

**d) Fraud Prevention Policy:**

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

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

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

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

Details of IEM for this tender is furnished below:

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

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

Note:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

If any

- Debt recovery / Winding up Proceedings are initiated against the Company in Courts / Debt Recovery Tribunals (DRTs),
- Proceedings are there against the Company in National Company Law Tribunal (NCLT) with respect to Insolvency and Bankruptcy Code (IBC) or otherwise,
- Any proceedings are there against the Company under the “Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act,
- Any restructuring proceedings are underway for the Company under Corporate Debt Restructuring (CDR), Strategic Debt Restructuring (SDR) or otherwise,
- Divestment / demerger proceedings are underway for the Company under the Companies Act.

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

The above list is not exhaustive but is indicative only.

**N. Special Note:**

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

**-O-**

**Record of Revisions:**

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

## ANNEXURE

### Model General Business Rules for Reverse Auction

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

#### 1. Procedure of Reverse Auctioning

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

**2. Schedule for Reverse Auction:** The Reverse Auction is tentatively scheduled on {date}: and the duration of online sealed bid will be {...} minutes. All bidders to submit their online sealed bids during this period.

##### - Online Sealed Bid:-

- {Start Time:
- Close Time: }

##### - Online Reverse Auction:-

- {Start Time:
- Close Time: }

#### 3. Auction extension time:

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

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

The above process will continue till completion of Reverse Auction.

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

**4. Bid price:** The Bidder has to quote the {.....} Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, GST, Freight (bidder to provide original Freight paid receipt), insurance charges, etc. including loading (if indicated by BHEL due to deviations in technical/commercial terms) for the Items specified. Details are as shown in Excel Sheet for calculation of total cost to BHEL (To be specified by Unit as per NIT conditions).

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

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

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

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

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

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

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

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

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

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

responsibility/ decision to send fax communication immediately to M/s. {Service provider}, furnishing the price the bidder wants to bid online with a request to the service provider to upload the faxed price online so that the service provider will upload that price online on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by the service provider in a readable/ legible form and also the Bidder should simultaneously check up with service provider about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by the service provider only within the closure of Bid time and under no circumstance it shall be allowed beyond the closure of Bid time /reverse auction. It shall also be noted that the service provider should be given a reasonable required time by the bidders, to upload such prices online and if such required time is not available at the disposal of the Service provider at the time of receipt of the fax message from the bidders, the service provider will not be uploading the prices and either BHEL or the service provider are not responsible for this unforeseen circumstances. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the reverse auction successfully. Failure of power or loss of connectivity at the premises of bidders during the Reverse auction cannot be the cause for not

participating in the reverse auction. On account of this, the time for the auction cannot be extended and neither BHEL nor M/s. {Service provider} is responsible for such eventualities.

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

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

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

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

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

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

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

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

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

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



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

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

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

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

24. Bidder shall not divulge either his Bids or any other exclusive details of BHEL to any other party. If the Bidder or any of his representatives are found to be involved in Price manipulation/ cartel formation of any kind, directly or indirectly by communicating with other bidders, action as per extant BHEL guidelines for suspension of business dealings (as available on [www.bhel.com](http://www.bhel.com)), shall be initiated by BHEL.



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

To  
- M/s. Service provider  
- Postal address

CC: M/s BHEL

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

Sub: Final price quoted during Reverse Auction and price breakup

Dear Sir,

We confirm that we have quoted.

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

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

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

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

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

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

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

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE DESALINATION**  
**Commercial Terms and Conditions**  
**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                       | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | VENDOR (SELLER) CONFIRMATION |
|---------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| I       | <b>Technical</b>                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
| 01      | SCOPE OF SUPPLY                                   | <p>Please confirm the Scope of Supply as per Technical Specification No.</p> <p><b>1) TECHNICAL SPECIFICATION FOR ULTRA FILTRATION SYSTEM (PRESSURIZED SYSTEM) - ROS:6206 REV 00 DATED 07.02.2018</b></p> <p><b>2) TYPICAL UF SKID ARRANGEMENT</b></p> <p><b>3) QUALIFICATION REQUIREMENT ANNEXURE B TO SPECIFICATION ROS 6206 REV 00,</b></p> <p><b>3) PROCESS FLOW DIAGRAM - 3 WT 220 00829 REV 00,</b></p> <p><b>4) UF SHED LAYOUT - 3 WT 220 00828 REV 01,</b></p> <p>submit the same after necessary Filling, signing &amp; returning a copy of the same.</p> |                              |
| 02      | SPECIFICATION                                     | Please confirm Clause wise / Point wise in TOTO for all specifications and submit along with offer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |
| 03      | DATA SHEETS / DRAWINGS                            | Filled Data Sheets and Drawings are to be submitted along with offer. ( if applicable )                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 04      | QUALITY ASSURANCE PLAN (QAP)                      | To confirm applicable QAP will be followed. (OR) Supplier's Quality Plan to be submitted for our review and approval within 30 days from the date of Letter of Award (LOA).                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| 05      | SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR) | Attached SDDR to be filled & submitted along with offer. (Even if NO deviation is taken, NIL report to be submitted).                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |
| 06      | SUPERVISION OF ERECTION & COMMISSIONING.          | Please confirm the "SUPERVISION OF ERECTION & COMMISSIONING " as per Specification <b>ROS:6206 REV 00 DATED 07.02.2018</b> attached by signing & returning a copy of the same.                                                                                                                                                                                                                                                                                                                                                                                     |                              |
| 07      | COMMISSIONING SPARES                              | <p>Please confirm that the "COMMISSIONING SPARES WILL BE SUPPLIED ALONG WITH MAIN SUPPLY FOR TROUBLE FREE COMMISSIONING.</p> <p>The commissioning spares List and the individual price should be indicated and included in the main supply.</p> <p>Any other spare(s) required during commissioning but not indicated in the list, should also be supplied at your cost &amp; BHEL will not entertain any claim towards supply of such spares used/supplied during commissioning.</p>                                                                              |                              |
| 08      | INSPECTION BEFORE DESPATCH                        | Please confirm for 'Inspection of all the Items by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the dispatch of the item at vendor works as per approved QAP. Please note that no payment will be made by BHEL towards inspection.                                                                                                                                                                                                                                                           |                              |
| 09      | INSPECTION REPORT /TEST CERTIFICATE (TC)          | <p>Please confirm that required Inspection Reports / Test Certificate/Reports will be provided at 'No Extra Cost'.</p> <p>1) Sub-Vendor Internal Inspection Report will be provided,</p> <p>2) Principle's Inspection Report will be provided,</p> <p>3) Material Test Report will be provided for all the manufacturing items.</p> <p>4) ALL DOCUMENTS CALLED IN THE SPECIFICATION.</p>                                                                                                                                                                           |                              |
| 10      | ERECTION MANUAL (INSTALLATION INSTRUCTIONS)       | Please confirm for providing of 'comprehensive Erection Manual covering the entire supply which include bought-outs' 6 sets in Hard copy & one CD form.                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 11      | O & M MANUAL                                      | Please confirm for providing of 'comprehensive O&M Manual covering the entire System' 6 sets in Hard copy & one CD form.                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE DESALINATION**  
**Commercial Terms and Conditions**  
**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                                                                        | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | VENDOR (SELLER) CONFIRMATION |
|---------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 13      | CONTACT PERSON'S ON TECHNICAL DETAILS FOR CORRESPONDENCE                                           | Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |
|         |                                                                                                    | Designation:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |
|         |                                                                                                    | Phone No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |
|         |                                                                                                    | Mobile No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
|         |                                                                                                    | Fax No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
|         |                                                                                                    | E-mail ID:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |
| II      | <b>Commercial Terms &amp; Conditions</b><br><b>(Common for both Indigenous and Foreign Offers)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
| 01      | PRICE                                                                                              | Please confirm 'Firm Price' till completion of order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 02      | UNPRICED BID (PART-1)                                                                              | Please confirm submission of ' <b>Unpriced bid</b> ' in the price bid format attached duly signed and also submit the Qualification Requirement.<br><br>SCANNED COPY of FILLED & SIGNED COPY OF 'Price Bid' format attached by filling all informations by writing ' <b>Quoted</b> ' as the case may be in the ' <b>Rate</b> ' and ' <b>Value</b> ' columns to be submitted through E-Procurement System.                                                                                                                                                       |                              |
| 03      | PRICED BID (PART-2)                                                                                | Please confirm submission of ' <b>Priced bid</b> ' in the price bid format attached duly signed.<br><br>SCANNED COPY of FILLED & SIGNED COPY OF ' <b>Price Bid</b> ' format attached by filling all informations by writing the value as the case may be in the ' <b>Rate</b> ' and ' <b>Value</b> ' columns in a separate attachment to be submitted through E-Procurement System.<br><br><b>Price bid opening will be considered after the Techno-Commercial evaluation &amp; further final approval from the customer: M/s. NTECL VALLUR 3 X 500 MW TPS.</b> |                              |
| 04      | CONSIGNEE ADDRESS                                                                                  | Please confirm supply to the following consignee address in the event of Order.<br><br><b>BHEL RANIPET Site Office,</b><br><b>NTPC TAMIL NADU ENERGY COMPANY LTD. (NTECL)</b><br><b>[VALLUR THERMAL POWER PROJECT (3X500 MW)]</b><br><b>P.O: Vellivoyal Chavadi,</b><br><b>Ponneri Taluk, Thiruvallur District,</b><br><b>Chennai- 600 103</b><br><br><b>On account of M/s BHEL, BAP, Ranipet - 632 406</b>                                                                                                                                                     |                              |
| 05      | GOODS AND SERVICES TAX (GST) FOR SERVICE PORTION                                                   | Please indicate the exact percentage of CGST/SGST/UTGST/IGST (whichever is applicable) is quoted as per the existing tariff on the date of the offer and all benefits as per existing laws have been considered.<br><br>It is the responsibility of the seller to issue the Tax Invoice strictly as per the format prescribed under the relevant applicable GST law (CGST Act/SGST Act/UTGST Act/IGST Act).<br><br>Vendor to indicate the proper GSTN Registration/ HSN code in their tax invoice.                                                              |                              |
|         | PAYMENT TERM FOR                                                                                   | 1) 80% payment with 100% Duties & Taxes after completion of SUPERVISION OF ERECTION work certified by BHEL Site Engineer.                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |
|         |                                                                                                    | 2) Balance 20% after completion of COMMISSIONING Work certified by BHEL Site Engineer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE DESALINATION**  
**Commercial Terms and Conditions**  
**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                                                                                                                                                             | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                         | VENDOR (SELLER) CONFIRMATION |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 06      | SUPERVISION OF ERECTION & COMMISSIONING.                                                                                                                                                | 3) Differential Payments applicable - Within 45 days from the date receipt of complete documents for MSE vendor & Within 90 days from the date receipt of complete documents for Non MSE vendors<br><br>Please confirm your status in case of MSE with relevant proof.<br><br>For MSE Registration, you have to submit the Notarized copy of MSE certificate with Original CA certificate                                                            |                              |
| 07      | SUPERVISION OF ERECTION & COMMISSIONING PERIOD FOR ENQ. NO. 005                                                                                                                         | Please confirm the completion of SUPERVISION OF ERECTION & COMMISSIONING on BHEL-Ranipet's Request basis after receipt of material at Site.<br><br>Vendor to confirm to depute their Engineer on needbased call from BHEL. BHEL will provide advance intimation before 2-3 days.                                                                                                                                                                     |                              |
| 08A     | LIQUIDATED DAMAGES (LD) - Service Portion                                                                                                                                               | Purchaser reserves the right to recover from the Seller/ Contractor, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the Service Portion price per week or part thereof, subject to a maximum of ten (10) percent of the total contract price including GST & if any, if the Seller/ Contractor fails to deliver any part of the ordered stores within the period stipulated in the Order/ Contract. |                              |
| 08b     | LIQUIDATED DAMAGES (LD) - Supply Portion                                                                                                                                                | Purchaser reserves the right to recover from the Seller/ Contractor, as agreed liquidated damages and not by way of penalty, a sum equivalent to half (½) percent of the Service Portion price per week or part thereof, subject to a maximum of ten (10) percent of the total contract price including GST & if any, if the Seller/ Contractor fails to deliver any part of the ordered stores within the period stipulated in the Order/ Contract. |                              |
| 09      | OFFER VALIDITY                                                                                                                                                                          | Please confirm Offer Validity for a minimum period of 60 days from the date of price bid opening.                                                                                                                                                                                                                                                                                                                                                    |                              |
| 10      | GUARANTEE CERTIFICATE (GC) - Supply Portion.                                                                                                                                            | Please confirm furnishing of Guarantee certificate in BHEL format for 12 months from the date of commissioning or 18 months from the date of last despatch whichever is earlier.                                                                                                                                                                                                                                                                     |                              |
| 11      | <b>Contract Execution Bank Guarantee (CEBG).</b><br>Ple Ref: ANNEXURE –A GENERAL TERMS & CONDITIONS (FOR GUIDANCE TO THE SUPPLIERS) Under Clause -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).                                                                                                                                                                                                                              |                              |
| 12      | BANK GUARANTEE (BG) TOWARDS Supply Portion (10% OF ORDER VALUE)                                                                                                                         | BG to be submitted in the format issued by BHEL.<br>BG for 10% of the Total PO Value. Validity of the Bank Guarantee shall be for the entire Guarantee period. Initially, it should be at least 18 months, later extended to cover the entire guarantee period, two months before its expiry.                                                                                                                                                        |                              |
| 13      | RISK PURCHASE CLAUSE (CLAUSE No. 6 of General Terms and Conditions for Indigenous offer)                                                                                                | BHEL's Standard Risk Purchase clause will be applicable. Please confirm.                                                                                                                                                                                                                                                                                                                                                                             |                              |
| 14      | REVERSE AUCTION                                                                                                                                                                         | Please see the Clause in the main enquiry regarding Reverse Auction (RA). RA will be conducted through our Service Provider. Vendor to confirm acceptance.                                                                                                                                                                                                                                                                                           |                              |
|         |                                                                                                                                                                                         | Please note that in case BHEL decides not to conduct RA, the sealed price bids along with the impact price bids arising out of techno-commercial discussions already available with BHEL only will be opened. Please note that no impact price due to non-conductance of RA will be accepted. Vendor to confirm acceptance.                                                                                                                          |                              |

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
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**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                                                              | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | VENDOR (SELLER) CONFIRMATION |
|---------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 15      | 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, PBG, etc., where in we have specified the days, percentages etc., then loading will be done to the extent of the short fall with respect to the upper Limit specified for evaluation.<br><br>In respect of LD offers which do not accept for LD Clause would be summerly rejected - Please Confirm.                                            |                              |
| 16      | ZERO DATE<br>(CONTRACT EFFECTIVE DATE)                                                   | Contract Effective date starts from Manufacturing Clearance subject to Documents submission clause.<br>Please confirm for 'Date of Manufacturing Clearance'.                                                                                                                                                                                                                                                                                                                                            |                              |
| 17      | 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.                                                                                                                                                                                                                                                                                                                      |                              |
| 18      | PLEASE PROVIDE THE STATUTORY DETAILS<br>(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. :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |
| 19      | CONTACT PERSON'S ON<br>COMMERCIAL DETAILS FOR<br>CORRESPONDENCE                          | Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |
|         |                                                                                          | Designation:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
|         |                                                                                          | Phone No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |
|         |                                                                                          | Mobile No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
|         |                                                                                          | Fax No.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |
|         |                                                                                          | E-mail ID:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |
| III     | <b><u>Commercial Terms &amp; Conditions</u></b><br><b><u>(Indigenous Offer Only)</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
| 01      | DELIVERY TERMS & PRICE BASIS                                                             | Please confirm for FOR - Destination ( <b>NTECL VALLUR 3 X 500 MW TPS</b> ) basis.<br><br>Unloading the Material at site is under BHEL Scope.                                                                                                                                                                                                                                                                                                                                                           |                              |
| 02      | 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.                                                                                                                                                                                                                                                        |                              |
| 03      | PACKING & FORWARDING                                                                     | Please confirm inclusion of Packing & Forwarding Charges in the Basic quoted price.<br><br>If it is extra payable by BHEL, Please clearly indicate the applicable Packing & Forwarding charges in Lumpsum or % value.                                                                                                                                                                                                                                                                                   |                              |
| 04      | FREIGHT & INSURANCE                                                                      | Please confirm inclusion of Freight & Insurance Charges towards this in the Basic quoted price.<br><br>A) If Freight & GST is extra payable by BHEL, Please clearly indicate the applicable portions of :<br>01.Freight charges in Lumpsum or % on Basic Quoted price.<br>02.If GST applicable for the freight kindly indicate the same.<br><br>B) If Insurance is extra payable by BHEL, Please clearly indicate the applicable portions of : Insurance charges in Lumpsum or % on Basic Quoted price. |                              |

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
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**Commercial Terms and Conditions**  
**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                     | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | VENDOR (SELLER) CONFIRMATION |
|---------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 05      | GOODS AND SERVICES TAX (GST) FOR SUPPLY PORTION | <p>Please indicate the exact percentage of CGST/SGST/UTGST/IGST (whichever is applicable) is quoted as per the existing tariff on the date of the offer and all benefits as per existing laws have been considered.</p> <p>It is the responsibility of the seller to issue the Tax Invoice strictly as per the format prescribed under the relevant applicable GST law (CGST Act/SGST Act/UTGST Act/IGST Act).</p> <p>Vendor to indicate the proper GSTN Registration/ HSN code in their tax invoice.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
| 06      | PAYMENT TERM FOR SUPPLY                         | <p>1. Vendor has to submit the Invoice for 100% of Basic price with applicable % of GST, Freight with GST if any. BHEL will be released the <b>85% Payment</b> of basic price of materials supplied, along with freight, taxes and duties (as applicable), shall be paid against receipt of material at site on pro-rata basis and submission of Bank Guarantee for 10% of PO value valid till guarantee period towards performance before first submission of documents for payment. 15% of basic price of materials supplied will be retained as security deposit which will be released on prorata basis</p> <p>BG - 10% of Order/ Contract value (excluding taxes, duties &amp; freight) before first submission of documents for payment to cover the due performance of Order/ Contract and to fulfill the guarantee conditions stipulated in the Order/ Contract.</p> <p><b>Validity of the Bank Guarantee shall be for the entire Guarantee period. Initially, it should be at least 18 months plus 3 months claim period, later extended to cover the entire guarantee period, two months before its expiry.</b></p> |                              |
|         |                                                 | <p>2. <b>5% Payment</b> will be released on pro-rata basis after submission of Material Receipt Certificate (MRC) from project site engineer of owner/purchaser. Collection of Material Receipt Certificate from site/owner and its submission for claiming the payment shall be the responsibility of the Seller/Contractor.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
|         |                                                 | <p>3. <b>10% Payment</b> will be released after i) submission of all final documents as per Technical Specifications and ii) successful completion of Performance Guarantee (PG)/ Demonstration Test and handing over of the system/ package, if applicable, as per Order/ Contract.</p> <p>PG Test to be conducted within 120 days from the date of Intimation by the vendor after successful completion of Commissioning. However if BHEL delay the PG Test more than 120 days from the date of commissioning then BHEL will release the final 10% payment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
|         |                                                 | <p>4. Differential Payments applicable - Within 45 days from the date receipt of complete documents for MSE vendor &amp; Within 90 days from the date receipt of complete documents for Non MSE vendors</p> <p>Please confirm your status in case of MSE with relevant proof.</p> <p>For MSE Registration, you have to submit the Notarized copy of MSE certificate with Original CA certificate</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |

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**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                                                           | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | VENDOR (SELLER) CONFIRMATION |
|---------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 07      | DELIVERY PERIOD<br>(FOR ENQ. SL. NO. 001, 002,003 & 004)                              | <p>Please confirm the supply completion on or before <b>10.06.2018 or 3 Months</b> from the date of Manufacturing clearance, which ever is Later.</p> <p>Vendor to submit all drawings/documents within 2 weeks from the date of purchase order and resubmit the drawings/documents within 1 week incorporating all the comments.</p> <p>In case there are delays of submission of drawings/documents beyond 2 weeks of order or 1 week of comments, that much days of delay would be reduced from delivery period.</p> <p>Vendor can also quote improved delivery date if any or otherwise, please clearly indicate the delivery period in weeks / months from the date of Manufacturing clearance.</p> <p>NOTE: Delivery period shall be reckoned till receipt of materials at site. For LD Purpose, Date of site receipt of material will only be considered.</p> |                              |
| IV      | <b><u>Commercial Terms &amp; Conditions</u></b><br><b><u>(Foreign Offer Only)</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |
| 01      | SELLERS NAME                                                                          | Please furnish Full Address, Contact Person, Phone, Fax & Email etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
| 02      | MANUFACTURER'S NAME                                                                   | Please furnish Full Address, Contact Person, Phone, Fax & Email etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |
| 03      | COUNTRY OF ORIGIN                                                                     | Please indicate the Country of Origin of the Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |
| 04      | PACKING & FORWARDING                                                                  | Please confirm inclusion of Packing & Forwarding Charges (FOB Charges) to the nearest Public Sea / Air Port if any in the quoted price. Stuffing Charges shall be in Vendor's account only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |
| 05      | DELIVERY TERM & PRICE BASIS                                                           | Please confirm submission of offer on C&F / Chennai Sea / Air Port basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 06      | FREIGHT CHARGES FROM FOREIGN SEA / AIR PORT TO INDIAN SEA / AIR PORT                  | Please confirm provision of freight charges separately in the offer from Foreign Sea / Air Port to Indian Sea / Air Port.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 07      | ALTERNATE DELIVERY TERM & PRICE BASIS                                                 | Please confirm submission of alternate offer on FOB Sea / Air Port basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |
| 08      | PORT OF SHIPMENT / AIRLIFTING                                                         | Please confirm and specify the nearest public Sea / Air Port in the Supplier's country.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |
| 09      | CUSTOMS DUTY IN %<br>(For Supply)                                                     | Please indicate Applicable or Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |
|         |                                                                                       | If applicable, please indicate the exact percentage applicable as on the date of submission of offer and also indicate whether the same is payable extra by BHEL or not.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |
|         |                                                                                       | <p>1) BHEL will provide the necessary exemption certificate from competent authorities and hence CD is not applicable. (Vendor to confirm availing of CD exemption). In order to get CD Exemption Certificate from the authority concerned by BHEL to match the delivery period, vendor has to agree to provide their Principle if any in their offer itself.</p> <p>2) In case BHEL is not able to provide the CD Exemption certificate, CD will be paid by BHEL.</p>                                                                                                                                                                                                                                                                                                                                                                                               |                              |

**ANNEXURE - C**  
**BHEL : BAP : RANIPET**  
**PURCHASE DESALINATION**  
**Commercial Terms and Conditions**  
**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No. | DESCRIPTION                                              | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | VENDOR (SELLER) CONFIRMATION |
|---------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 10      | PAYMENT TERM FOR SUPPLY                                  | <p>1. Vendor has to submit the Invoice for 100% of Basic price. BHEL will be released the <b>85% Payment</b> of basic price of materials supplied shall be paid against receipt of material at site on pro-rata basis and submission of Bank Guarantee for 10% of PO value valid till guarantee period towards performance before first submission of documents for payment. 15% of basic price of materials supplied will be retained as security deposit which will be released on prorata basis</p> <p>2) BG - 10% of Order/ Contract value (excluding taxes, duties &amp; freight) before first submission of documents for payment to cover the due performance of Order/ Contract and to fulfill the guarantee conditions stipulated in the Order/ Contract.</p> <p>3) <b>Validity of the Bank Guarantee shall be for the entire Guarantee period. Initially, it should be at least 18 months plus 3 months claim period, later extended to cover the entire guarantee period, two months before its expiry.</b></p> <p>4) <b>LC will be opened thro' SBI / SBT / DEUTSCHE BANK / IDBI / ICICI and advised by their Correspondent Bank in Seller Country. LC will be opened only with 2½ months validity for shipment.</b></p> <p>5) <b>If quoted price in Indian Rupees for the 'Imported Portion', then the payment terms will be as per the payment terms for the Indigenous supply.</b></p> <p>2. <b>5% Payment</b> will be released on pro-rata basis after submission of Material Receipt Certificate (MRC) from project site engineer of owner/purchaser. Collection of Material Receipt Certificate from site/owner and its submission for claiming the payment shall be the responsibility of the Seller/Contractor.</p> <p>3. <b>10% Payment</b> will be released after i) submission of all final documents as per Technical Specifications and ii) successful completion of Performance Guarantee (PG)/ Demonstration Test and handing over of the system/ package, if applicable, as per Order/ Contract.</p> <p>PG Test to be conducted within 120 days from the date of Intimation by the vendor after successful completion of Commissioning. However if BHEL delay the PG Test more than 120 days from the date of commissioning then BHEL will release the final 10% payment.</p> |                              |
| 11      | DELIVERY PERIOD<br>(FOR ENQ. SL. NO. 001, 002,003 & 004) | <p>Please confirm the supply completion on or before <b>10.06.2018 or 3 Months</b> from the date of Manufacturing clearance, which ever is Later.</p> <p>Vendor to submit all drawings/documents within 2 weeks from the date of purchase order and resubmit the drawings/documents within 1 week incorporating all the comments.</p> <p>In case there are delays of submission of drawings/documents beyond 2 weeks of order or 1 week of comments, that much days of delay would be reduced from delivery period.</p> <p>Vendor can also quote improved delivery date if any or otherwise, please clearly indicate the delivery period in weeks / months from the date of Manufacturing clearance.</p> <p>NOTE: Delivery period shall be reckoned till receipt of materials at site. For LD Purpose, Date of site receipt of material will only be considered.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |
| 12      | TRANSHIPMENT (IF ANY)<br>NOT PREFERRED                   | Please note that Transhipment is not preferred by BHEL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |
| 13      | APPROX. WEIGHT & DIMENSION<br>OF THE CONSIGNMENT         | Please indicate the consignment details clearly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |
| 14      | ADDRESS OF THE INDIAN<br>AGENT / REPRESENTATIVE          | Please clearly indicate the Indian Agent's details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |
| 15      | AGENCY COMMISSION,<br>IF ANY IN%                         | Should be included in the Price & will be paid in Indian Rupees only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |
| 16      | BANKER'S NAME & ADDRESS<br>FOR PAYMENT PURPOSE           | LC will be opened through any one of the Indian Bank listed in Sl. No. IV - 09 and advised by their Correspondent Bank in Seller Country                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |

**ANNEXURE - C**  
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**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

| Sl. No.     | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | BHEL (PURCHASER) REQUIREMENT                                                                                                                                                                | VENDOR (SELLER) CONFIRMATION |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| 17          | SHIPPING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Consignment to be shipped through <b>40 feet REEFER CONTAINER</b> , Stuffing Charges if any is to Supplier's Account only.<br><br>Please indicate the type & Number of Containers involved. |                              |
| 18          | <p><b><u>In the case of INDIGENOUS Supply</u></b><br/>1. All the Items (Indigenous Supply) are to be inspected 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.<br/>2. Proper Inspection Report &amp; Packing List to be provided for all the sub vendor Items.</p> <p><b><u>In the case of IMPORT Supply</u></b><br/>1. All the Items (Import supply) are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP.<br/>2. All the imported Items are to be supplied in container/s only and sufficient number of days (Minimum 20-25 Days) to be considered for return of the container after unloading at site.<br/>3. BHEL expects Import Supply in Foreign Currency quote. In case the quote is in Indian Rupee, then all relevant commercial Terms and Conditions will be applicable as per Indigenous Supply.</p> | Acceptance Required                                                                                                                                                                         |                              |
| 19          | <p><b>We have not taken cognizance of commercial terms mentioned anywhere in your offer.</b></p> <p><b>Commercial terms and conditions indicated in this Annexure - A will only be applicable and binding.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Acceptance Required                                                                                                                                                                         |                              |
| Offer Ref.: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Signature & Seal of Offerer                                                                                                                                                                 |                              |
| Offer Date: |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                             |                              |

**ANNEXURE - D 1**  
**BHEL : BAP : RANIPET**  
**PURCHASE - DESALINATION**  
**PRICE OFFER**

**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

**PRICE OFFER IF QUOTED IN INDIGENOUS OFFER**

| Enquiry Sl. No.                                                   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Qty. | HSN NO. | GOODS AND SERVICES TAX (CGST/SGST/UTGST/IGST) | Rate in Rs. | Amount in Rs. |
|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|---------|-----------------------------------------------|-------------|---------------|
| 0001                                                              | <b>RWT706200001</b><br>UF SYSTEM CONSISTS OF PRESSURIZED UF MEMBRANE MODULE SKIDS /T RAINS FOR PRODUCING 2400 CUM/HR. NET PERMEATE. EACH KID / TRAIN CONSISTS OF UF MEMBRANES, MODULE BODY, SUPPORTS OF MODULES, FRAME, APP. HEADERS & ACCESSORIES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                      | ST.  | 1.00 |         |                                               |             |               |
| 0002                                                              | <b>RWT706200002</b><br>MANDATORY SPARES FOR UF MEMBRANES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.<br>Clause No. 8.0<br><i>(1 Set of Mandatory Spares consist of 10% of total Installed Membrane modules)</i><br><i>The Bidder should also indicate if any spare(s) other than those indicated in the spec is/are required.</i><br><i>The Mandatory spares List and the individual price should be indicated.</i> | ST.  | 1.00 |         |                                               |             |               |
| 0003                                                              | <b>RWT706200003</b><br>DIRECT INTEGRITY TEST KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                        | ST.  | 1.00 |         |                                               |             |               |
| 0004                                                              | <b>RWT706200004</b><br>FIBRE REPAIR KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                 | ST.  | 1.00 |         |                                               |             |               |
| <b>Total Price (Total of Enq.Sl. No. 001, 002, 003 &amp; 004)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |      |         |                                               |             |               |

**OFFERS FOR INDIGENOUS PORTION (SERVICES)**

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |      |  |  |  |  |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|--|--|--|--|
| 005                                           | <b>RWT706200005</b><br>SUPERVISION OF ERECTION, COMMISSIONING & PG TEST AS PER SL. NO. 10 OF AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.<br><br><i>(SUPERVISION OF ERECTION, COMMISSIONING &amp; PG TEST for maximum of Thirty man-days (comprising 6 - 8 visits &amp; excluding travels days, Sunday &amp; holidays) at NTECL - VALLUR site.</i><br><i>Vendor to include travel to &amp; fro charges, lodging, local conveyance etc., for the above.)</i><br><br><b>ALSO VENDOR TO PROVIDE BREAK-UP PRICE FOR THE TECHNICAL ADVISORY SERVICES.</b> | ST. | 1.00 |  |  |  |  |
| <b>Total Price (Total of Enq.Sl. No. 005)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |      |  |  |  |  |

**ANNEXURE - D 1**  
**BHEL : BAP : RANIPET**  
**PURCHASE - DESALINATION**  
**PRICE OFFER**

**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

**PRICE OFFER IF QUOTED IN INDIGENOUS OFFER**

| Enquiry<br>Sl.<br>No. | Description | Unit | Qty. | HSN NO. | GOODS AND<br>SERVICES<br>TAX<br>(CGST/SGST/<br>UTGST/IGST) | Rate<br>in<br>Rs. | Amount<br>in<br>Rs. |
|-----------------------|-------------|------|------|---------|------------------------------------------------------------|-------------------|---------------------|
|-----------------------|-------------|------|------|---------|------------------------------------------------------------|-------------------|---------------------|

**OFFERS FOR INDIGENOUS PORTION - OPTIONAL**

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |      |  |  |  |  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------|--|--|--|--|
| <b>OPTIONAL PRICE</b>  | <p><i>RECOMMENDED SPARES FOR 3 YEARS O &amp; M<br/>Supplier has to submit the list of spares with breakup details.</i></p> <p><i>Price validity of 2 Years from the date of Ordering of Main Supply.</i></p> <p><i>NOTE: THIS ITEM WILL BE ORDERED IF REQUIRED ONLY AND THIS ITEM WILL NOT BE CONSIDERED FOR ARRIVING RANKING</i></p>                                                                                                                                                                                                                                                                                              | SET                                    | 1.00 |  |  |  |  |
|                        | <p><i>TECHNICAL ADVISORY SERVICES FOR ADDITIONAL VISIT<br/>(ONE VISIT CONSIST OF MINIMUM THREE DAYS EXCLUDING TRAVELS AND SUNDAY &amp; HOLIDAYS)<br/>WHICH INCLUDE TRAVEL TO &amp; FRO CHARGES, LODGING, LOCAL CONVEYANCE ETC.</i></p> <p><i>ALSO VENDOR TO PROVIDE BREAK-UP PRICE FOR THE ADDITIONAL VISIT.</i></p> <p><i>NOTE: THIS ITEM WILL BE ORDERED IF REQUIRED ONLY AND THIS ITEM WILL NOT BE CONSIDERED FOR ARRIVING RANKING</i></p>                                                                                                                                                                                      | DIEM                                   | 1.00 |  |  |  |  |
| <b>IMPORTANT NOTES</b> | <p>1. All the Items (Indigenous Supply) are to be inspected 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.</p> <p>2. Supply of Commissioning spares is Vendor scope and the price shall be included in the main supply and list of commissioning spares and qty to be indicated.</p> <p>3. Proper Inspection Report &amp; Packing List to be provided for all the sub vendor Items.</p> <p>4. All the items will be compared on set basis and Order will be placed on Single Vendor only.</p> |                                        |      |  |  |  |  |
|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Signature &amp; Seal of Offerer</b> |      |  |  |  |  |

| <p align="center"><b>ANNEXURE - D 2</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>PURCHASE - DESALINATION</b><br/> <b>PRICE OFFER</b><br/> <b>PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT</b><br/> <b>Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT_36983)</b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                             |      |                          |                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------|--------------------------|----------------------------|
| <p align="center"><b>PRICE OFFER IF QUOTED IN IMPORT OFFER -</b><br/> <b>Delivery term FOB Nearest Public sea port</b></p>                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                             |      |                          |                            |
| Enquiry Sl. No.                                                                                                                                                                                                                                                                                                                                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit                                                        | Qty. | Rate in Foreign Currency | Amount in Foreign Currency |
| 0001<br>A                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200001</b><br>UF SYSTEM CONSISTS OF PRESSURIZED UF MEMBRANE MODULE SKIDS /T RAINS FOR PRODUCING 2400 CUM/HR. NET PERMEATE. EACH KID / TRAIN CONSISTS OF UF MEMBRANES, MODULE BODY, SUPPORTS OF MODULES, FRAME, APP. HEADERS & ACCESSORIES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                           | ST.                                                         | 1.00 |                          |                            |
| 0002<br>A                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200002</b><br>MANDATORY SPARES FOR UF MEMBRANES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018. Clause No. 8.0<br><i>(1 Set of Mandatory Spares consist of 10% of total Installed Membrane modules)</i><br><i>The Bidder should also indicate if any spare(s) other than those indicated in the spec is/are required.</i><br><i>The Mandatory spares List and the individual price should be indicated.</i>                                                                                                                                                                                         | ST.                                                         | 1.00 |                          |                            |
| 0003<br>A                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200003</b><br>DIRECT INTEGRITY TEST KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ST.                                                         | 1.00 |                          |                            |
| 0004<br>A                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200004</b><br>FIBRE REPAIR KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ST.                                                         | 1.00 |                          |                            |
| <p align="right"><b>Total Price (Total of Enq.Sl. No. 001,002,003 &amp;004)</b></p>                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                             |      |                          |                            |
| IMPORTANT NOTES                                                                                                                                                                                                                                                                                                                                            | 1. All the Items (Import supply) are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP.<br>2. All the imported Items are to be supplied in container/s only and sufficient number of days (Minimum 20-25 Days) to be considered for return of the container after unloading at site.<br>3. Proper Inspection Report & Packing List to be provided for all the sub vendor Items.<br>4. All the items will be compared on set basis and Order will be placed on Single Vendor only. |                                                             |      |                          |                            |
|                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p align="right"><b>Signature &amp; Seal of Offerer</b></p> |      |                          |                            |

|                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |                                             |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------|---------------------------------------------|-----------------------------------------------|
| <p align="center"><b>ANNEXURE - D 3</b><br/> <b>BHEL : BAP : RANIPET</b><br/> <b>PURCHASE - DESALINATION</b><br/> <b>PRICE OFFER</b><br/> <b>PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES</b><br/> <b>FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT</b><br/> <b>Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT_36983)</b></p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |                                             |                                               |
| <p align="center"><b>PRICE OFFER IF QUOTED IN IMPORT OFFER -</b><br/> <b>Delivery term CIF Chennai sea port</b></p>                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                        |             |                                             |                                               |
| <b>Enquiry<br/>Sl.<br/>No.</b>                                                                                                                                                                                                                                                                                                                             | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Unit</b>                            | <b>Qty.</b> | <b>Rate<br/>in<br/>Foreign<br/>Currency</b> | <b>Amount<br/>in<br/>Foreign<br/>Currency</b> |
| 0001<br>B                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200001</b><br>UF SYSTEM CONSISTS OF PRESSURIZED UF<br>MEMBRANE MODULE SKIDS /T RAINS FOR<br>PRODUCING 2400 CUM/HR. NET PERMEATE.<br>EACH KID / TRAIN CONSISTS OF UF MEMBRANES,<br>MODULE BODY, SUPPORTS OF MODULES,<br>FRAME, APP. HEADERS & ACCESSORIES<br>AS PER TECHNICAL SPECIFICATION NO.<br>ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                      | ST.                                    | 1.00        |                                             |                                               |
| 0002<br>B                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200002</b><br>MANDATORY SPARES<br>FOR UF MEMBRANES<br>AS PER TECHNICAL SPECIFICATION NO.<br>ROS: 6206 REV 00 DATED 07.02.2018.<br>Clause No. 8.0<br><i>(1 Set of Mandatory Spares consist of 10% of total<br/>           Installed Membrane modules)</i><br><i>The Bidder should also indicate if any spare(s) other<br/>           than those indicated in the spec is/are required.</i><br><i>The Mandatory spares List and the individual price<br/>           should be indicated.</i>                                                                                                                                | ST.                                    | 1.00        |                                             |                                               |
| 0003<br>B                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200003</b><br>DIRECT INTEGRITY TEST KIT<br>AS PER TECHNICAL SPECIFICATION NO.<br>ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ST.                                    | 1.00        |                                             |                                               |
| 0004<br>B                                                                                                                                                                                                                                                                                                                                                  | <b>RWT706200004</b><br>FIBRE REPAIR KIT<br>AS PER TECHNICAL SPECIFICATION NO.<br>ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ST.                                    | 1.00        |                                             |                                               |
|                                                                                                                                                                                                                                                                                                                                                            | <b>Total Price (Total of Enq.Sl. No. 001,002,003 &amp;004)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                        |             |                                             |                                               |
| <b>IMPORTANT NOTES</b>                                                                                                                                                                                                                                                                                                                                     | 1. All the Items (Import supply) are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP.<br>2. All the imported Items are to be supplied in container/s only and sufficient number of days (Minimum 20-25 Days) to be considered for return of the container after unloading at site.<br>3. Proper Inspection Report & Packing List to be provided for all the sub vendor Items.<br>4. All the items will be compared on set basis and Order will be placed on Single Vendor only. |                                        |             |                                             |                                               |
|                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Signature &amp; Seal of Offerer</b> |             |                                             |                                               |

**ANNEXURE - D 4**  
**BHEL : BAP : RANIPET**  
**PURCHASE - DESALINATION**  
**PRICE OFFER**

**PRESSURIZED UF SYSTEM MEMBRANE MODULES AND ACCESSORIES**  
**FOR UF PLANT - NTECL VALLUR 3 X 500 MW TPS PROJECT**  
**Enquiry No. 7771581E Dated 08-FEB-18 Due Date 22-FEB-18 (NIT\_36983)**

**PRICE OFFER IF QUOTED IN IMPORT OFFER -**  
**Delivery term CIF Chennai sea port on High Sea Sale Basis**

| Enquiry Sl. No.        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Qty. | Rate in INR | Amount in INR |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-------------|---------------|
| 0001<br>C              | <b>RWT706200001</b><br>UF SYSTEM CONSISTS OF PRESSURIZED UF MEMBRANE MODULE SKIDS /T RAINS FOR PRODUCING 2400 CUM/HR. NET PERMEATE. EACH KID / TRAIN CONSISTS OF UF MEMBRANES, MODULE BODY, SUPPORTS OF MODULES, FRAME, APP. HEADERS & ACCESSORIES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ST.  | 1.00 |             |               |
| 0002<br>C              | <b>RWT706200002</b><br>MANDATORY SPARES FOR UF MEMBRANES AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.<br>Clause No. 8.0<br><i>(1 Set of Mandatory Spares consist of 10% of total Installed Membrane modules)</i><br><i>The Bidder should also indicate if any spare(s) other than those indicated in the spec is/are required.</i><br><i>The Mandatory spares List and the individual price should be indicated.</i>                                                                                                                                                                                                                                                                                                                                                        | ST.  | 1.00 |             |               |
| 0003<br>C              | <b>RWT706200003</b><br>DIRECT INTEGRITY TEST KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ST.  | 1.00 |             |               |
| 0004<br>C              | <b>RWT706200004</b><br>FIBRE REPAIR KIT AS PER TECHNICAL SPECIFICATION NO. ROS: 6206 REV 00 DATED 07.02.2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ST.  | 1.00 |             |               |
|                        | <b>Total Price (Total of Enq.Sl. No. 001,002,003 &amp; 004)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |      |             |               |
| <b>IMPORTANT NOTES</b> | 1. All the Items (Import supply) are to be inspected by BHEL Engineers / BHEL Authorized Engineer and Customer / Consultant Engineer either jointly or individually before the despatch of the item at vendor works as per approved QAP.<br>2. All the imported Items are to be supplied in container/s only and sufficient number of days (Minimum 20-25 Days) to be considered for return of the container after unloading at site.<br>3. Supply of Commissioning spares is Vendor scope and the price shall be included in the main supply and list of commissioning spares and qty to be indicated.<br>4. Proper Inspection Report & Packing List to be provided for all the sub vendor Items.<br>5. All the items will be compared on set basis and Order will be placed on Single Vendor only. |      |      |             |               |
|                        | <b>Signature &amp; Seal of Offerer</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |      |             |               |

| ANNEXURE - E<br>SPECIFICATION DEVIATION DISPOSITION REPORT (SDDR)                                                                                                                                                                                                                                                                                    |        |                                                                                                                    |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------|---------------------|
| Enq.No & Date                                                                                                                                                                                                                                                                                                                                        |        | Enquiry No. 7771581E Dated 08-FEB-18 Due Date<br>22-FEB-18 (NIT_36983)                                             | Vendor Name         |
| 1) TECHNICAL SPECIFICATION FOR<br>ULTRA FILTRATION SYSTEM<br>(PRESSURIZED SYSTEM) - ROS:6206<br>REV 00 DATED 07.02.2018<br>2) TYPICAL UF SKID ARRANGEMENT<br>3) QUALIFICATION REQUIREMENT<br>ANNEXURE B TO SPECIFICATION ROS<br>6206 REV 00,<br>3) PROCESS FLOW DIAGRAM - 3 WT 220<br>00829 REV 00,<br>4) UF SHED LAYOUT - 3 WT 220 00828<br>REV 01, |        | PRESSURIZED UF SYSTEM MEMBRANE<br>MODULES AND ACCESSORIES<br>FOR UF PLANT - NTECL VALLUR 3 X 500 MW<br>TPS PROJECT |                     |
| Page                                                                                                                                                                                                                                                                                                                                                 | Clause | Details Of Deviation With Reason                                                                                   | Disposition By BHEL |
|                                                                                                                                                                                                                                                                                                                                                      |        |                                                                                                                    |                     |
| Signature Of Vendor                                                                                                                                                                                                                                                                                                                                  |        |                                                                                                                    | Reviewed By         |
| “ AGREED DEVIATION “                                                                                                                                                                                                                                                                                                                                 |        | APPROVED BY                                                                                                        |                     |
| if any to be incorporated in the PO in the event of order.                                                                                                                                                                                                                                                                                           |        |                                                                                                                    |                     |

Date :

VENDOR's SIGNATURE WITH SEAL

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

### **CONTRACT EXECUTION BANK GUARANTEE**

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

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

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

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

2. We.....  
.....  
.....(name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the Contractor(s) 'failure to perform' the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....in words.....  
.....

Sign and seal of issuing bank

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

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

4. We.....(name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till Purchase Department of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

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

Sign and seal of issuing bank

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

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

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

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

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

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

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

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

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

Sign and seal of issuing bank.

## **Online SRF Submission Procedure**

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

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

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

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

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

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

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

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

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

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

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

## **INTEGRITY PACT**

### **Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi – 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

### **and**

\_\_\_\_\_, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

### **Preamble**

The Principal intends to award, under laid-down organizational procedures, contract/s for

\_\_\_\_\_  
\_\_\_\_\_. The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

## **Section 1 – Commitments of the Principal**

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
  - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

## **Section 2 – Commitments of the Bidder(s)/ Contractor(s)**

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
  - 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved

in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he / she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/ PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

### **Section 3 – Disqualification from tender process and exclusion from future contracts**

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors". framed by the Principal.

### **Section 4 – Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent Earnest Money Deposit/Bid Security.
- 4.2 If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

### **Section 5 – Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

## **Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-contractors**

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from all subcontractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20 % of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/ Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

## **Section 7 – Criminal Charges against violating Bidders/ Contractors /Sub-contractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

## **Section 8 –Independent External Monitor(s)**

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC / PC Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the

Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.

8.10 The word 'Monitor' would include both singular and plural.

## **Section 9 – Pact Duration**

9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.

9.2 If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

## **Section 10 – Other Provisions**

10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.

10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.

10.4 Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

10.5 Only those bidders/ contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

-----

For & On behalf of the Principal

(Office Seal)

-----

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place-----

Date-----

Witness: \_\_\_\_\_

(Name & Address) \_\_\_\_\_

\_\_\_\_\_

Witness: \_\_\_\_\_

(Name & Address) \_\_\_\_\_

\_\_\_\_\_

BHARAT HEAVY ELECTRICALS LIMITED,  
RANIPET- 632 406.

TECHNICAL SPECIFICATION

FOR

ULTRA FILTRATION SYSTEM  
(Pressurized System)

ROS-6206

|             |          |                        |                              |                 |             |
|-------------|----------|------------------------|------------------------------|-----------------|-------------|
|             |          |                        |                              |                 |             |
|             |          |                        |                              |                 |             |
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|             |          |                        |                              |                 |             |
| 00          | 07.02.18 | <u>A. Kumar</u><br>ABH | <u>Imrli/KMS</u><br>IMRL/KMS | <u>MN</u><br>MN | Fresh issue |
| Rev.<br>No. | Date     | Prepared               | Checked                      | Approved        | Remarks     |

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## 1.0 SCOPE OF SUPPLY & WORK

The intent of this specification is to cover Design, Engineering, Manufacturing, Shop testing, Supply, of Pressurized UF membrane modules and accessories including Supervision services for Erection, Commissioning and Performance guarantee test as mentioned below.

The scope shall fully cover the requirement of the Design Criteria and Technical requirement of this specification for treating the feed water to meet the product water requirement of Plant. The scope of supply & services shall include but not limited to the following

- a) UF system -1 set, consists of UF membrane skids/trains capable of for producing 2400 m<sup>3</sup>/hr net permeate water for down train of SWRO plant.

### **Skid/Trains configuration**

- i. 6 working (W) skids/trains+ 2 standby(S) skids/trains. Each skid/train shall be capable of producing 400 m<sup>3</sup>/hr net permeate output. **(or)**
  - ii. 8 working (W) skids/trains + 2 standby(S) skid/train. Each skids/trains shall be capable of producing 300 m<sup>3</sup>/hr net permeate output
- Each skid/train shall consist of Pressurized UF membranes, module body, supports of module, mounting frames, anchoring arrangement, feed ,filtrate and other applicable header pipes etc.
  - Each skid/train shall consist of 3 or 4 UF blocks. Each UF block shall be supplied in assembled condition with headers & accessories.
  - Each block shall be supplied with headers for feed, drain, reject, permeate, backwash, airline, CIP, etc as applicable. Necessary air vents shall be provided.
  - Balance frontal piping of all skids/trains for connecting with a common header with necessary valves and instruments shall be carried out by BHEL (frontal piping valves & instruments are excluded from the bidder scope).
- b) 1 sets of foundation bolts, packing materials & fasteners for offered skids/trains/blocks . 1 set means quantities required for total UF system offered by bidder
- c) 1 set of mandatory spares for UF membrane modules - 10% of installed membrane modules.
- d) 1 set of membrane integrity test kit
- e) 1 set of fiber repair kit
- f) Supervision charges for Erection, Commissioning & PG test.
- i) 30 man-days (excluding travelling days, Sundays, & Holidays) shall be considered.
  - ii) Number of visits shall be approx. 6-8 (based on site requirements)
  - iii) Price for Supervision charges shall be quoted as lump sum including travelling, stay, conveyance and other incidental charges.

The scope for supervision of erection, commissioning and PG test requirements shall be as mentioned elsewhere in the specification. Items though not mentioned but needed to make the system complete as stipulated under these specifications are also to be furnished unless otherwise specifically excluded.

- 1.1** It is not the intent to specify all the details of the design & manufacture. However, the equipment shall conform in all respects to high standard of design, engineering and workmanship and shall be capable of performing the required duties in a manner acceptable to Engineer / Customer, who will interpret the meaning of drawing & the specification and shall be entitled to reject any work or material, which is not in full accordance herewith.
- 1.2** In case of any deviation, the Bidder shall indicate the same, clause by clause in the deviation schedule. In the absence of the same it will be construed that the bid confirms strictly to the specification.
- 1.3** General terms & conditions, instructions to the bidder & other attachments referred to elsewhere are part of this specification.
- 1.4** Note. In case of any contradiction between different chapters / sections / annexures of the technical specification, bidder may bring it to the purchaser's notice prior to bid submission in the form of pre bid queries and get it clarified from the purchaser. Otherwise, the most stringent specification shall be applicable in case of contradiction as decided by the purchaser.

## **2.0 PROJECT INFORMATION**

|                                       |                                                                                                                                                                                                                  |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Owner                                 | NTPC – Tamil Nadu Energy Company Ltd.                                                                                                                                                                            |
| Project Title                         | Ultrafiltration Plant Package for NTECL-Vallur<br>3x500 MW TPS                                                                                                                                                   |
| Location                              | Located between Ennore creek and Kuruvimedu village of Ponneri, Taluk of Thiruvallur district in Tamil Nadu<br><br>Site is located at a distance of about 20 Kms from Chennai city                               |
| Nearest Railway Station / Access Road | The nearest railhead, Kathivakkam is at a distance of 1 Km on trunk route section of Southern Railway from the project site.<br><br>The National Highway exists at a distance of about 14 Kms from project site. |

### 3.0 TECHNICAL REQUIREMENT

#### 3.1 UF SYSTEM CAPACITY

|                                              |                                                       |
|----------------------------------------------|-------------------------------------------------------|
| No. of UF trains/skids                       | : 6(W) + 2(S) or 8(W)+2(S)                            |
| Net average output per UF train/skid         | : 400 or 300 m <sup>3</sup> /hr                       |
| Net average output from 'N' working UF train | : 2400 m <sup>3</sup> /hr (57600 m <sup>3</sup> /day) |
| Recovery per UF train                        | : 95% minimum                                         |
| Gross Flux*                                  | : ≤ 65 LMH                                            |

Note\*:

Gross flux = (Total permeate required per day including back wash requirement in m<sup>3</sup> x 1000) / (Total area of the membranes for N(working) skids in m<sup>2</sup> x 24 hrs)

#### 3.2 INLET WATER QUALITY FOR DESIGN

The feed water quality to be considered for the design of Ultra Filtration System is indicated below. Feed water to UF system is filtered sea water tapped off from existing Horizontal Pressure Sand Filters (HPSF).

| Sl. No. | Parameter                                             | Unit | Value |
|---------|-------------------------------------------------------|------|-------|
| 1       | Calcium as CaCO <sub>3</sub>                          | mg/l | 960   |
| 2       | Magnesium as CaCO <sub>3</sub>                        | mg/l | 5160  |
| 3       | Sodium as                                             | mg/l | 10145 |
| 4       | Potassium as                                          | mg/l | 394   |
| 5       | Bicarbonates (HCO <sub>3</sub> ) as CaCO <sub>3</sub> | mg/l | 92    |
| 6       | Oil & grease                                          | mg/l | Nil   |
| 7       | Iron                                                  | mg/l | 0.145 |
| 8       | Manganese                                             | mg/l | Nil   |
| 9       | Strontium                                             | mg/l | 0.0   |
| 10      | Barium                                                | mg/l | 0.0   |
| 11      | Chloride as                                           | mg/l | 18531 |
| 12      | Sulphate as                                           | mg/l | 2420  |
| 13      | Nitrate as NO <sub>3</sub>                            | mg/l | 0.124 |
| 14      | Phosphate                                             | mg/l | 1.4   |
| 15      | Carbonate                                             | mg/l | 0.0   |
| 16      | Bromide                                               | mg/l | 0.0   |
| 17      | Fluoride                                              | mg/l | 1.92  |
| 18      | Silica (as SiO <sub>2</sub> )                         | mg/l | 0.574 |
| 19      | Colloidal silica                                      | mg/l | Nil   |
| 20      | pH                                                    | ---  | 7.3   |
| 21      | Total Hardness as CaCO <sub>3</sub>                   | mg/l | 6120  |
| 22      | Ca hardness as CaCO <sub>3</sub>                      | mg/l | 960   |

| Sl. No. | Parameter                         | Unit  | Value |
|---------|-----------------------------------|-------|-------|
| 23      | Mg hardness as CaCO <sub>3</sub>  | mg/l  | 5160  |
| 24      | p-alkalinity as CaCO <sub>3</sub> | mg/l  | Nil   |
| 25      | m-alkalinity as CaCO <sub>3</sub> | mg/l  | 92    |
| 26      | Turbidity                         | NTU   | <5    |
| 27      | Total Suspended Solids            | ppm   | 5     |
| 28      | Total Dissolved Solids            | ppm   | 39280 |
| 29      | Temperature                       | Deg C | 25-30 |
| 30      | Conductivity                      | μS/cm | 42660 |
| 31      | BOD                               | mg/l  | Nil   |
| 32      | COD                               | mg/l  | 100   |
| 33      | Free Cl <sub>2</sub>              | ppm   | Nil   |

### 3.3 PERFORMANCE & GUARANTEE REQUIREMENT OF UF SYSTEM

The plant performance should meet the outlet water quality at UF outlet as indicated below:

| Sl. No. | Guarantee Parameters                          | Unit               | Value    |
|---------|-----------------------------------------------|--------------------|----------|
| 1       | Net Permeate Flow Rate from UF System (total) | m <sup>3</sup> /hr | 2400     |
| 2       | SDI <sub>15</sub>                             |                    | <3       |
| 3       | Recovery per skid                             | %                  | 95 (min) |
| 4       | Turbidity                                     | NTU                | <1       |

- 1) Net permeate flow rate from each Ultra-Filtration skid/train shall be guaranteed and it shall not be less than rated flow. Net Permeate flow rate from the Ultra-Filtration Plant shall not be less than 2400 m<sup>3</sup>/hr.
- 2) **Inlet water to UF skids/trains is fed through 4 (3(W)+1(S))Feed pumps Duty point of each pump : Flow : 842 M<sup>3</sup>/hr,Head 11 MWC.Bidder shall note the pressure heads available at inlet of the UF skids and design accordingly.Details furnished in the PFD drawing.Pumps are in BHEL scope.**
- 3) For the design water quality and the permeate water capacity guaranteed, undiminished overall recovery of UF Plant shall not be less than 95% up to the **end of 5 years of operation** with replacement guarantee of membrane elements.
- 4) Availability factor of each UF skid delivering net permeate flow shall be not less than 95%.
- 5) Filtration Capacity of Ultra-Filtration System shall be guaranteed meeting the effluent quality and the same shall not be less than specified capacity.
- 6) SDI test shall be carried in accordance with ASTM standard D4189.

## 4.0 TECHNICAL SPECIFICATION - MECHANICAL

### 4.1 DESIGN CRITERIA

UF plant shall be operated and controlled through PLC based control system. Complete Ultra-filtration plant, is conceived with multiple skid/trains. The product water

is envisaged to be stored in storage tank & further fed to existing Desalination plant. It shall be possible to operate the Ultrafiltration plant to its full design capacity or in part capacity by isolation of any of the skid/train. This operational flexibility built into the scheme shall be achievable through control system.

Operation of UF Plant shall be completely automatic through common PLC system. PLC system (**excluded from bidder's scope**) will be provided by customer. Bidder shall furnish control logics and render all technical assistance in operating their system through PLC system.

Ultrafiltration system shall be designed to allow multiple starts and stops without affecting the service life of the membranes. The system may experience extended periods of no flow. System design shall protect the system against periods of no flow as recommended by membrane manufacturer.

The number of UF trains / skids shall be designed on N+2 philosophy where N is the number of Working trains and 2 is the number of stand-by trains.

Provisions for local grab sampling points shall be available at various points throughout the system to monitor UF Filter performance. Sample ports on the feed, concentrate and permeate (to enable evaluation of system performance) & Sample port on each pressure vessel permeate outlet to facilitate troubleshooting.

UF membranes shall be hollow-fiber, pressurized type. Membrane materials shall be Polyvinylidene di fluoride (PVDF) or Polyethersulfone(PES). Gross maximum design flux rate shall not be more than 65 l/m<sup>2</sup>/h. Filtration direction shall be Out-to-In or In-to-Out. Design UF recovery shall not be less than 95%. Pore size of membrane shall not be more than 0.04 microns.

Visible inspection window built into the filtrate discharge pipe or any other arrangement as per manufacturer's standard shall be provided so that in the event of fiber breakage, the affected module shall be easily identifiable on the skid/train/block.

For Direct Integrity Testing, arrangement and facilities like air pressure system, gaskets, instruments, valves, fittings and any other equipment as required shall be provided as per manufacturer's standard practice to detect any leak from fibres/modules.

Fiber Repair Kit (Concentrate tube plug, Air supply apparatus, glue-5nos., repair pins, knife or diagonal cutters etc.), Oil-free compressor, Personal protection equipment (gloves, safety glasses, etc.) shall be provided by the Bidder. Bidder shall also furnish the Fiber Repair Protocol from OEM.

UF normal backwashing and chemical cleaning frequency shall be adjustable individually and controlled from the control system including number of cycles before chemically cleaning is initiated. Time duration of these backwash cycles shall also be adjustable from the control system.

After the manufacture, following tests for membrane shall be demonstrated at membrane manufacturer's works in the presence of customer's representative.

- 1) Bubble Point Test in one batch
- 2) Integrity test (Pressure decay test/vacuum hold test) for 1 % of total membrane population.

In case such test facilities are not available at manufacturer's works, the test may be carried out at any other test facility with the approval of customer. All cost associated with testing at membrane manufacturer's works or at any other test facility shall be borne by the bidder.

Integrity test shall be carried out in accordance with ASTM D 6908-06, Standard Practice for Integrity Testing of Water Filtration Membrane Systems (Pressure decay test/vacuum hold test) and approved test procedure. Bidder shall submit the test procedure for Employer's approval within two months of award

#### 4.2 EQUIPMENT SPECIFICATION (ULTRAFILTRATION SKIDS)

|     |                               |                                                                                                          |
|-----|-------------------------------|----------------------------------------------------------------------------------------------------------|
| 1.  | No. of UF trains/skids        | :6(W)+ 2(S) or 8(W)+ 2(S) Bidder to specify                                                              |
| 2.  | No. of blocks per train/skid  | : Bidder to specify. No. of membrane module per block and no. of rows per block shall also be specified. |
| 3.  | Location                      | : Under shade                                                                                            |
| 4.  | UF Module Type                | : Pressurized, Dead end                                                                                  |
| 5.  | Net output capacity / train   | : 400 or 300 m <sup>3</sup> /hr Bidder to specify                                                        |
| 6.  | Recovery                      | : 95 % (min)                                                                                             |
| 6a  | Membrane Guarantee            | : 5 years                                                                                                |
| 7.  | Membrane Pressure Vessel Dia. | : Bidder to specify                                                                                      |
| 8.  | MOC of Pressure Vessel        | : Bidder to specify                                                                                      |
| 9.  | Rating of Pressure Vessel     | : Bidder to specify.                                                                                     |
| 10. | Type of membrane mounting     | : vertical                                                                                               |
| 11. | Membrane Type                 | : Hollow Fiber, Chlorine tolerant (bidder to specify the no. of ppm-hours for the life of the membrane)  |
| 12. | Membrane material             | : Polyvinylidene di fluoride(PVDF) or Polyether sulfone(PES) Bidder to specify                           |
| 13. | Surface area of membrane      | : Bidder to specify.                                                                                     |
| 14. | Membrane pore size            | : ≤ 0.04 microns                                                                                         |
| 15. | Gross Flux                    | : ≤ 65LMH                                                                                                |

|     |                                                    |                                                                                                                                                                                                                             |
|-----|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16. | Membrane flow mode / configuration                 | : out to in / in to out. Bidder to specify.                                                                                                                                                                                 |
| 17. | Membrane assembly per block                        | : Total as a assembly with membranes modules in vertical position                                                                                                                                                           |
| 18. | Size of the skid / train                           | : Bidder to specify. Note: All the N+2 skids / trains shall be accommodated within the UF shed space as per the attached layout sketch (including membrane removal & handling space)                                        |
| 19. | Trans Membrane Pressure (TMP) for normal operation | : Vendor to specify                                                                                                                                                                                                         |
| 20. | Backwash waste water disposal scheme               | : It is envisaged to discharge UF backwash waste water to the inlet (5m elevation from UF train bottom) of Effluent Collection Tank without any intermediate pumping. UF system design shall take care of this requirement. |

#### Notes.

- 1) Necessary clamping arrangements shall be in bidder's scope.
- 2) The layout shall be made such that the necessary clear spacing shall be provided between two adjacent UF skids for maintenance & walkway purpose. The skid piping / header shall not project out of the UF skid/train boundary area.
- 3) Necessary spacing (minimum 600 mm) between adjacent membrane module rows(blocks) shall be provided to facilitate easy maintenance, assembly & removal of membrane modules from the interconnecting piping/rack, without disturbing other adjacent modules. Bidder to clearly indicate the spacing between adjacent membrane module rows in their typical skid/train assembly drawing.
- 4) Membrane modules mounted in rows shall be connected to respective feed, permeate, backwash, reject, CIP, air, headers etc. Further scope of piping shall be done by BHEL. Flanged terminal connection shall be provided for all the piping headers mentioned above.**
- 5) The membrane modules shall be connected to the respective headers with rigid piping with quick remove couplings (flexible hoses are not allowed).
- 6) Provision shall be provided for carrying out the bubble test / leak test for each membrane module.
- 7) Necessary clearance shall be provided between the roof shed and the UF skids/trains for lifting the membrane elements/maintenance.

- 8) The membrane mounting frame MOC shall be corrosive resistant suitable for seashore environment having sufficient strength and rigidity to support the all membrane modules, headers, inter connecting piping etc. Typical skid/train arrangement shall be submitted along with the bid.
- 9) The total net permeate quantity of 2400 m<sup>3</sup>/hr is required continuously to cater to the requirement of down train system. In addition, the permeate water requirement for UF backwash, chemical cleaning and other UF plant process requirement if any are also to be included. Bidder shall confirm the adequacy of the capacity of the train for all these requirements. If required, Bidder can make upward revision of the output quantity per train. UF backwash system & Chemical cleaning system shall be Common for all the trains and shall cater to the requirement of one complete train at a time.
- 10) Foundation bolts with necessary packing materials and fasteners required for the UF skids/blocks shall be supplied by the bidder. All the fasteners & foundation bolt MOC shall be duplex stainless steel.
- 11) The scope of bidder shall also cover review and vetting of scheme drawings such as PFD, P&ID diagram, etc., as well as layout and piping drawings for the UF plant prepared by BHEL based on the inputs from successful bidder.

## **5.0 GENERAL DESIGN REQUIREMENTS**

The common requirements for the system are stated in the general design requirements. However, the requirements indicated in the technical specification for mechanical equipment section 4 shall be strictly complied with.

### **5.1 COMMON REQUIREMENTS**

1. Only latest revision of standards shall be used.
2. Sampling connections and air vent at the top most point of piping and vessels shall be provided at all stages of the Unit.
3. The size of the overflow pipes of all storage tanks shall be one size higher than inlet pipe sizes of these tanks.
4. All the piping & valves are to be located to facilitate easy accessibility and operation from the ground level.
5. The direction of Flow shall be indicated by an arrow at regular intervals on all pipelines.

## **6.0 TECHNICAL DETAILS FOR CIVIL WORKS**

All civil works are excluded from bidder's scope. However, the bidder shall provide the equipment layout drawing along with bid. Detailed construction drawing with foundation requirement like load details, foundation pockets, etc., for all the skids, equipment, flooring requirements, trenches for pipe routing, cable routing & drains etc. shall be furnished for approval after order.

Any special requirement like handling arrangement, floor / trench protection etc. shall also be indicated in the drawings. All the plant drains & trenches are to be connected in a common trench and terminated near UF Plant boundary. The approximate area & location are indicated in the enclosed lay out drawing. Bidder to accommodate the UF system within the stipulated area only as indicated in the typical layout drawing attached along with this specification.

## **7.0 PERFORMANCE GUARANTEE TEST**

**7.1** The bidder shall guarantee all equipment for workmanship, materials and satisfactory performance. The guarantee for performance will cover individual items and systems including electrical for their ratings / outputs as well as for the integrated operation of equipment and its auxiliaries as a whole. On completion of satisfactory commissioning, performance / acceptance tests shall be conducted on the equipment and system as a whole for demonstrating the guaranteed performance parameters specified. The guarantee tests shall cover the following but not be limited to the rated parameters for smooth operation of complete UF system:

- a. UF outlet water quality as indicated in section 3.3
- b. UF system net output capacity and recovery as indicated in section 3.3

**7.2** Bidder shall provide necessary technical assistance during PG test. PG test shall be conducted in the presence of representative from BHEL, customer and successful bidder. Bidder shall comply to the approved PG test procedure issued by customer.

### **7.3 General**

In addition to the guarantees mentioned above, the requirements of specifications on all guarantees as elaborated under relevant clauses of Technical Specifications should be met.

Any part which proves defective either in design, materials / and / or manufacture within the guarantee period shall be replaced at free of cost to the owner at site and the provision of this clause shall apply to the portions of the plant so replaced or renewed until the expiration of the guarantee period or from the date of replacement whichever is later.

## **8.0 MANDATORY SPARES**

The mandatory spares shall be delivered along with the main supply. Cost of the mandatory spares shall be indicated separately and the same is considered for Bid Evaluation.

The list of mandatory spares is given below.

| Sl. No. | Mandatory Spare     | Qty                                     |
|---------|---------------------|-----------------------------------------|
| 1.      | UF membrane modules | 10% of total installed membrane modules |

## **9.0 MEMBRANE MODULE TESTING & REPAIR KIT**

### **9.1 DIRECT INTEGRITY TEST KIT**

The bidder shall supply direct Integrity Test Kit containing arrangement and facilities like air pressure system, gaskets, instruments, valves, fittings and any other equipment as required as per manufacturer's standard practice to detect any leak from fibres/modules.

### **9.2 FIBER REPAIR KIT**

Fiber Repair Kit consisting of (Concentrate tube plug, Air supply apparatus, glue-5 nos., repair pins, knife or diagonal cutters etc.), Oil-free compressor, Personal protection equipment (gloves, safety glasses, etc.) shall be supplied by the Bidder. Bidder shall also furnish the Fiber Repair Protocol from the OEM.

## **10.0 SUPERVISION OF ERECTION & COMMISSIONING**

The scope of supervision of Erection & commissioning shall involve the following

1. Supervision of erection of all the equipment supplied by the bidder.
2. Supervision of commissioning of the UF system.
3. Technical services during PG test- Bidder shall be responsible for achieving / demonstrating guaranteed parameter as per specification. Bidder shall render all the technical services during PG test.
4. Bidder shall render technical assistance for establishing UF plant operation through PLC and interfacing the control logics with existing control system.
5. If UF blocks are supplied to site in dismantled condition as loose items, they shall be assembled at site by bidder with no additional cost.
6. Bidder shall impart training to customer in operation and maintenance of the UF skids.

## **11.0 DOCUMENTATION**

### **11.1 GENERAL**

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

1. All documents and drawing shall be submitted in English
2. Hard copies of all documents and drawings during bid stage to be submitted in duplicate.
3. Hard copies of all documents for approval shall be submitted in triplicate.

4. Hard copies of all final documents, drawings, Erection and O& M manual etc., shall be submitted in bound folder in 6 copies.
5. Soft copies of all final documents in MS word / MS office in the form of CD –1 set
6. Soft copies of all final calculations in MS excel / MS office in the form of CD –1set
7. Soft copies of all final drawings in Auto Cad, latest version in the form of CD –1set

## 11.2 DOCUMENTS ALONG WITH BID:

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

1. Technical write-up giving details of equipment operation, interlocks / control requirement
2. Typical Quality Plan for major equipment (UF skid, UF membrane, etc.,)
3. Qualification Requirement (QR) documents as per **Annexure B**
4. UF membrane projections / process calculations
5. Typical membrane guarantee document
6. Membrane storage procedure before commissioning
7. Membrane preservation procedure (short term & long term) after commissioning
8. Membrane Datasheet
9. Correction curve for variation in feed water turbidity (from 5 NTU to 25 NTU)
10. Preliminary P& I diagram
11. Preliminary Equipment layout drawing
12. Typical arrangement drawing & isometric drawing of skid with membranes, piping, valves, headers arrangement including space for membrane removal, maintenance, walkway etc.,
13. Write-up about membrane removal & maintenance.
14. Filled up data sheets as called in the specification – Annexures 1 to 3
15. Chemical consumption for maintenance and recovery cleaning with frequency.
16. Utility requirements like instrument air, service air and service water for maintenance & recovery cleaning of UF Module
17. Cleaning sequence with flow rate, duration, effluent details, etc.,
18. Preliminary civil requirements.
19. PLC I/O list for each train covering all instruments, valves, etc.,
20. Reference list of the plants of similar capacity of single train executed in the last five years.
21. Deviation schedule duly filled, if any – Annexure – 6. Any deviation should have cost of withdrawal for our evaluation in the commercial bid.
22. Unpriced commercial offer on the scope of supply
23. Unpriced commercial offer for the recommended spares list

Bidder to note that failure to submit the above will be considered as incomplete and offer is liable for rejection.

**Note:**

In case of any deviation, the Bidder shall indicate the deviation, clause by clause in the deviation format attached in Annexure - 5. If there is no deviation "NIL" Deviation statement shall be furnished. In the absence of the non-attachment of this Annexure-6, it will be construed that the bid confirms strictly to the specification.

**11.3 DOCUMENTS AFTER ORDER**

The following drawings / documents are to be submitted post award of order.

**11.3.1 PHASE-I DOCUMENTS (for approval-within 7 days from the date of LOI):**

1. Technical Write-up and design basis
2. Sizing, projections / process calculations for UF membrane modules.
3. Filled up datasheets for approval as per Annexures 1 to 3
4. UF system "Control Description" write-up including operation, controls, interlocks, protection, annunciation etc.
5. Activity chart / Bar Chart and schedules for drawing submission, manufacturing, erection and commissioning.
6. Quality Plan and field quality checks, stage inspection etc. (for UF skid, UF membrane, etc).
7. Membrane Guarantee Document.
8. Membrane Datasheet.
9. Typical arrangement drawing & isometric drawing of skid with membranes, piping, valves, headers arrangement including space for membrane removal, maintenance, walkway etc.,
10. Write-up about membrane removal & maintenance.
11. PLC I/O list.

**11.3.2 PHASE-II DOCUMENTS (for information-within 2 weeks from the date of LOI):**

1. Membrane storage procedure before commissioning
2. Membrane preservation procedure after commissioning
3. Foundation Design drawings indicating foundation design, load data, anchor bolt location, pocket details, floor & trenches etc.
4. General arrangement drawings for all the equipment showing dimensions and details of materials.
5. As-built manufacturing drawing of the UF skid, frame and equipment

**11.3.3 PHASE-III DOCUMENTS (for information-before dispatch):**

1. Erection Manual indicating
  - a. Erection/installation instructions of equipment.
  - b. Log sheet containing stage check parameters & clearance
  - c. Field quality checks
2. Performance Test procedure

3. Shipping list for BHEL's approval in BHEL format

#### **11.3.4 PHASE-IV DOCUMENTS (for review):**

1. Operation and maintenance manual indicating operating procedure for start-up, normal operation, chemical cleaning, shut down and emergency shutdown. (O&M manual shall be supplied in 6 sets of hard copies and one set in soft form in CD).
2. Maintenance instruction & assembly
3. Lubrication chart.
4. UF System Logic diagram & Sequential Flow Chart (SFC) for PLC.
5. Test Certificates for all the supplied equipment.
6. List of alarm, interlock & trip set points
7. Installation drawings for instruments
8. As built drawings.
9. All other details called in Electrical specification.

Note: Bidder to confirm in their offer that these details called in section 11 will be provided.

## **12.0 ATTACHMENTS**

The following drawings enclosed are a part of the specification:

- |                                   |                  |
|-----------------------------------|------------------|
| 1. Process Flow Diagram (PFD)     | : 3-WT-220-00829 |
| 2. UF system equipment layout     | : 3-WT-220-00828 |
| 3. Typical Skid/train arrangement | : Annexure A     |
| 4. Qualification requirement      | : Annexure B     |

## DATA SHEET

## 1. UF OUTLET WATER QUALITY &amp; QUANTITY

| Sl. No. | Description                                  | Unit               | Values |
|---------|----------------------------------------------|--------------------|--------|
| 1.      | Net permeate output per UF train/skid        | m <sup>3</sup> /hr |        |
| 2.      | Total net permeate output from the UF system | m <sup>3</sup> /hr |        |
| 3.      | UF System Recovery                           | %                  |        |
| 4.      | Turbidity                                    | NTU                |        |
| 5.      | SDI <sub>15</sub>                            | -                  |        |

## 2. CHEMICAL REQUIREMENT FOR ONE CLEANING

| Sl. No. | Description        | Unit | Per time / train | Total per day / train |
|---------|--------------------|------|------------------|-----------------------|
| 1.      | Acid (HCl) - 33%   | kg   |                  |                       |
| 2.      | NaOCl - 6%         | ltrs |                  |                       |
| 3.      | Any other chemical |      |                  |                       |

## 3. CHEMICAL DOSING DURATION &amp; FREQUENCY

| Sl. No. | Description        | Solution Conc. (%) | Duration in minutes | No. of cycles per day |
|---------|--------------------|--------------------|---------------------|-----------------------|
| 1.      | Acid (HCl)         |                    |                     |                       |
| 2.      | NaOCl              |                    |                     |                       |
| 3.      | Any other chemical |                    |                     |                       |

## 4. MEMBRANE GUARANTEE

| Sl. No. | Description                     | Unit  | Values |
|---------|---------------------------------|-------|--------|
| 1.      | Guaranteed life of the membrane | years |        |

**EQUIPMENT DATA SHEET****A. PRESSURE VESSEL**

| Sl. No. | Description                               | Bidder to fill the details |  |
|---------|-------------------------------------------|----------------------------|--|
| 1.      | Make                                      |                            |  |
| 2.      | Model                                     |                            |  |
| 3.      | Material of construction                  |                            |  |
|         | - Pressure vessel                         |                            |  |
|         | - End Plate                               |                            |  |
|         | - End adapters                            |                            |  |
|         | - Holding strips                          |                            |  |
|         | - Support saddle                          |                            |  |
|         | - O rings                                 |                            |  |
| 4.      | Feed port                                 |                            |  |
|         | Permeate port                             |                            |  |
| 5.      | No. of pressure vessels offered per block |                            |  |
| 6.      | Pressure rating, psi                      |                            |  |
| 7.      | Design Pressure, psi                      |                            |  |
| 8.      | Test pressure, psi                        |                            |  |
| 9.      | Burst Pressure, psi                       |                            |  |
| 10.     | Port size / Orientation                   |                            |  |
|         | - Feed                                    |                            |  |
|         | - Permeate                                |                            |  |
| 11.     | Port Victaulic Groove Style               |                            |  |
|         | - Feed                                    |                            |  |
|         | - Permeate                                |                            |  |
| 12.     | Empty weight, kg                          |                            |  |
| 13.     | Filled weight, kg                         |                            |  |
| 14.     | Shipment weight, kg                       |                            |  |
| 15.     | Vessel Drawing No.                        |                            |  |

**EQUIPMENT DATA SHEET****B. UF MEMBRANE ELEMENT**

| Sl. No. | Description                                                              | Bidder to fill the details |  |  |
|---------|--------------------------------------------------------------------------|----------------------------|--|--|
| 1.      | Make                                                                     |                            |  |  |
| 2.      | Model                                                                    |                            |  |  |
| 3.      | Type / Material                                                          |                            |  |  |
| 4.      | Membrane pore size (Nominal/Absolute) micron                             |                            |  |  |
| 5.      | Membrane diameter, mm                                                    |                            |  |  |
| 6.      | Membrane length, mm                                                      |                            |  |  |
| 7.      | Nominal membrane area, m <sup>2</sup>                                    |                            |  |  |
| 8.      | Number of fibres                                                         |                            |  |  |
| 9.      | Fibre dimensions                                                         |                            |  |  |
| 10.     | Filtrate flow per element (min/max), m3/hr                               |                            |  |  |
| 11.     | Membrane flow mode / configuration                                       | IN to OUT / OUT to IN      |  |  |
| 12.     | Quantity offered per train (per skid)                                    |                            |  |  |
| 13.     | Membrane Housing assembly                                                | Vertical                   |  |  |
| 14.     | Guaranteed Life of membrane, years                                       |                            |  |  |
| 15.     | Recommended membrane replacement (If any)                                |                            |  |  |
| 16.     | Feed temperature (Design/Min/ Max)                                       |                            |  |  |
| 17.     | Feed TSS (Design/ Min/ Max)                                              |                            |  |  |
| 18.     | Feed pressure for design TSS, bar(g)                                     |                            |  |  |
| 19.     | Trans Membrane Pressure(TMP) for design TSS for normal operation, bar(g) |                            |  |  |
| 20.     | Maximum applied feed pressure, bar(g)                                    |                            |  |  |
| 21.     | Maximum permissible Trans Membrane Pressure(TMP), bar(g)                 |                            |  |  |
| 22.     | Maximum Backwash Trans Membrane Pressure, bar(g)                         |                            |  |  |
| 23.     | Max. chlorine exposure, ppm-hours                                        |                            |  |  |
| 24.     | Feed Flow rates (Min/ Max), m <sup>3</sup> /hr                           |                            |  |  |

| Sl. No. | Description                                                                    | Bidder to fill the details |  |
|---------|--------------------------------------------------------------------------------|----------------------------|--|
| 25.     | Permeate flow (Min/ Max), m <sup>3</sup> /hr                                   |                            |  |
| 26.     | Recovery, %                                                                    |                            |  |
| 27.     | Membrane flux (Design/Maximum), l/m <sup>2</sup> /hr                           |                            |  |
| 28.     | Maximum permitted pressure drop in bar for the above operating conditions      |                            |  |
| 29.     | Maximum permitted temperature in deg.C for membrane                            |                            |  |
| 30.     | Minimum permitted temperature in deg.C for membrane                            |                            |  |
| 31.     | Operating pH range                                                             |                            |  |
| 32.     | Guaranteed filtrate SDI <sub>15</sub> / NTU                                    |                            |  |
| 33.     | Maximum allowable organic loading<br>- TOC ppm :<br>- BOD ppm :<br>- COD ppm : |                            |  |
| 34.     | Weight per element, kg                                                         |                            |  |

Annexure - 4

RECOMMENDED SPARES FOR 3 YEARS O&M WITH PRICE(Optional)

| Sl. No. | Description of the equipment | Description of spares | Quantity | Unit Rate |
|---------|------------------------------|-----------------------|----------|-----------|
|         |                              |                       |          |           |
|         |                              |                       |          |           |
|         |                              |                       |          |           |
|         |                              |                       |          |           |
|         |                              |                       |          |           |
|         |                              |                       |          |           |
|         |                              |                       |          |           |
|         |                              |                       |          |           |

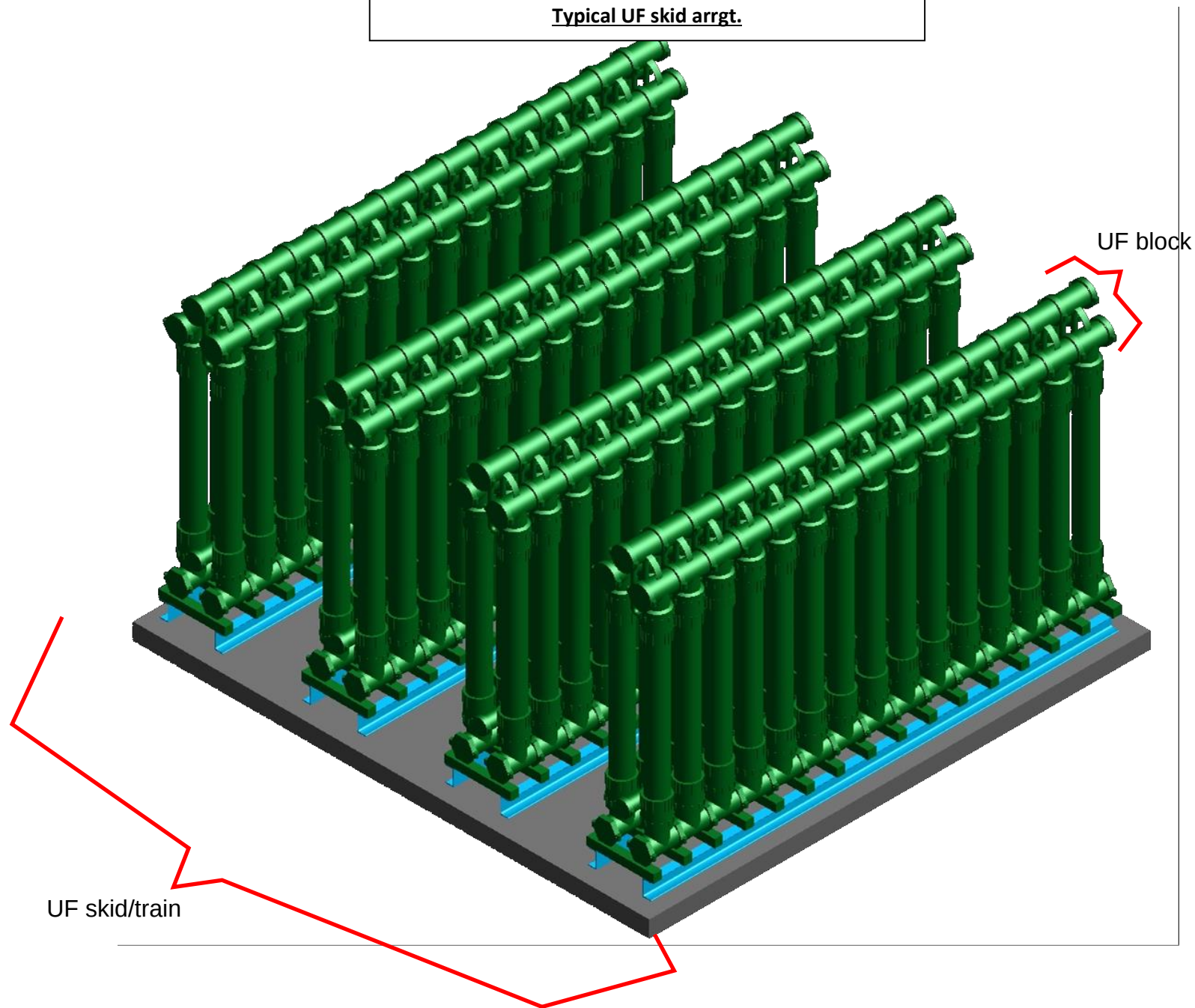
Bidder to submit recommended spares list with price with a validity of 2 years.Required spares shall be ordered later.

Annexure - 6

TECHNICAL DEVIATIONS

| Sl. No. | Sec. No. | Cl. No. | Pg. No. | Specification | Statement of Deviations / variations | Reason for Deviation |
|---------|----------|---------|---------|---------------|--------------------------------------|----------------------|
|         |          |         |         |               |                                      |                      |
|         |          |         |         |               |                                      |                      |
|         |          |         |         |               |                                      |                      |
|         |          |         |         |               |                                      |                      |
|         |          |         |         |               |                                      |                      |
|         |          |         |         |               |                                      |                      |

Typical UF skid arrgt.





**BHEL : BAP : RANIPET**

**Water Business**

**Annexure – B (Qualification Requirement) to specification ROS 6206 Rev00**

**QUALIFICATION REQUIREMENT for Ultrafiltration System for NTECL-Vallur 3x500 MW TPS**

The Qualification requirements (QR) for participation in the tender for **Ultrafiltration (UF) System** is detailed below. Bidders should meet the qualification requirement specified below. Offers of bidders who do not meet qualification requirement will not be considered.

**QUALIFICATION REQUIREMENT**

“Bidder should have supplied the Ultra Filtration system including membrane upstream to Sea Water Reverse Osmosis (SWRO) plant in a single SWRO plant one (1) number of UF system as offered of capacity not less than 435 cum/hr having each stream/skid/train of capacity not less than 145 cum/hr and such UF system including membrane should have been in successful operation for at least one (1) year as on 12.08.2016. Ultra Filtration (UF) system mentioned above shall mean the UF modules consisting of membranes, module body, supports of module, frame, feed and filtrate headers as minimum.

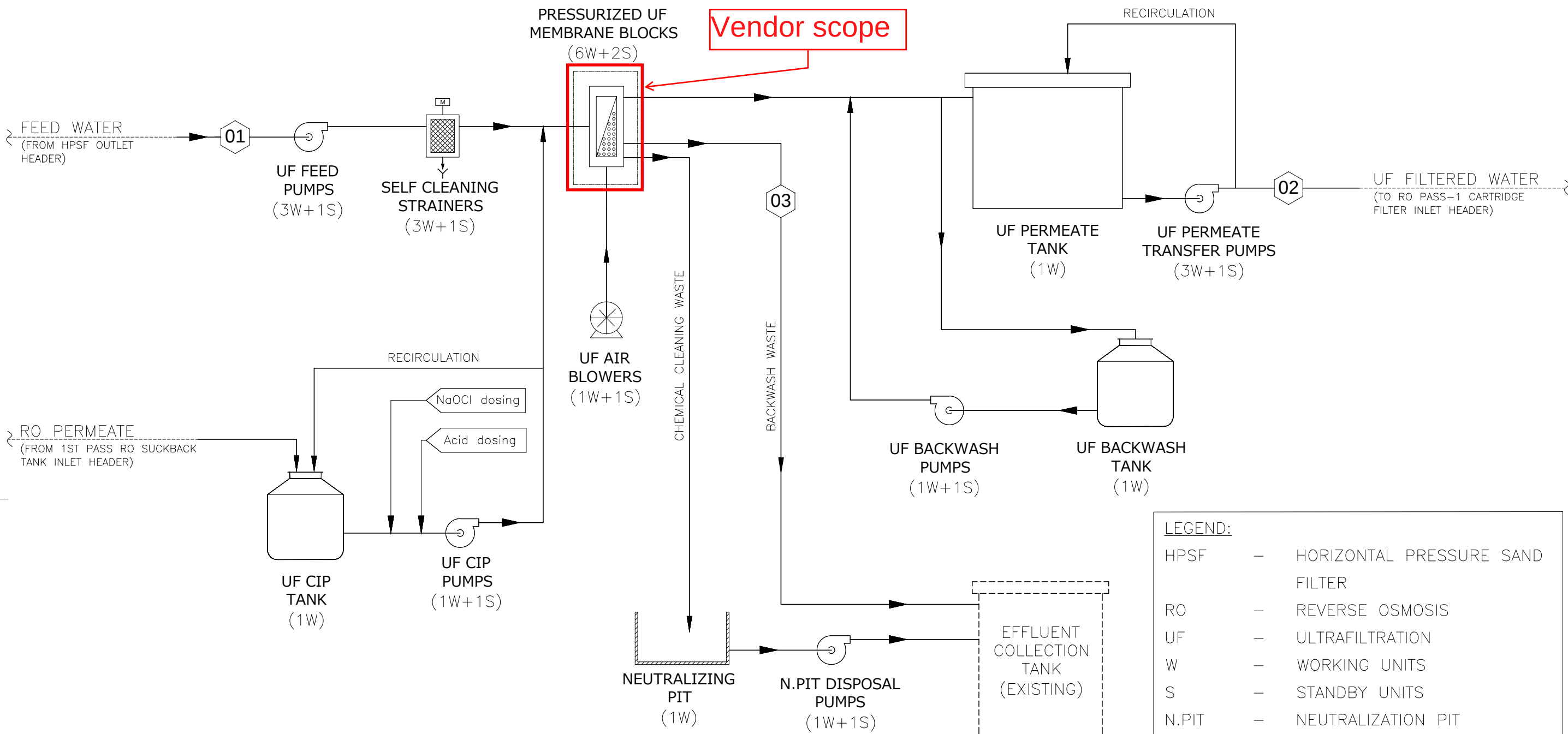
Ultra Filtration membrane shall be sourced from such manufacturer who has supplied membrane to the UF system and such membrane should have been in successful operation for at least one (1) year prior to the date of 12.08.2016”.

Documentary evidence to be submitted by the bidder (in support of meeting Qualification requirement) along with the bid.

1. Performance certificate from the end user in original/Notarized copy for the successful operation of the reference plant for minimum one year as on 12.08.2016
2. Purchase Order copy for the reference plant
3. Supporting documents clearly indicating capacity of each UF train / skid / stream, total UF plant capacity, type of UF membrane

**General**

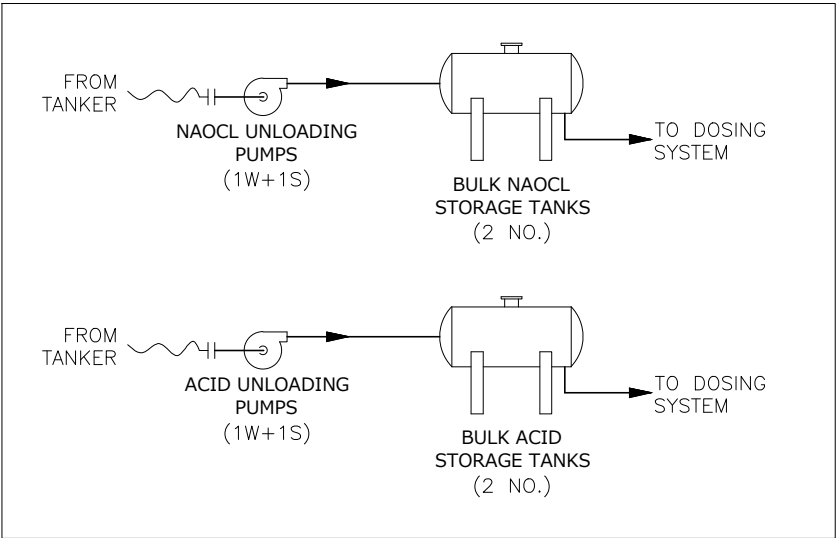
1. Bidder shall furnish documentary evidence listed above as a proof of meeting the qualifying criteria for review by BHEL. The certificate shall contain all required information for the satisfactory performance, such as plant capacity, location of the plant with postal address, date of supply & commissioning, design and actual performance parameters, etc. Acceptance of documentary evidence rests with BHEL.
2. Final acceptance of bidder is subject to the approval of end customer.



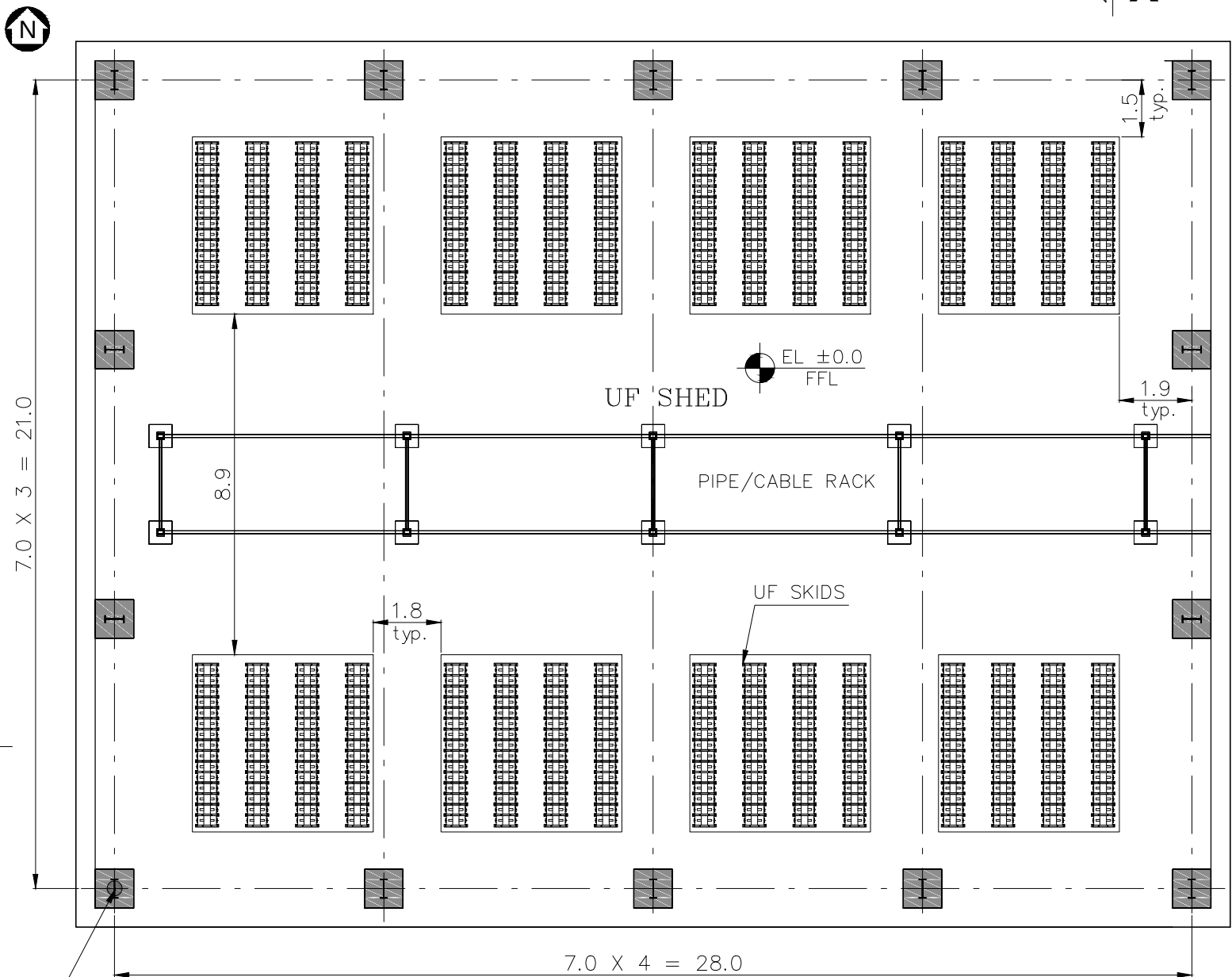
| LEGEND: |   |                                 |
|---------|---|---------------------------------|
| HPSF    | – | HORIZONTAL PRESSURE SAND FILTER |
| RO      | – | REVERSE OSMOSIS                 |
| UF      | – | ULTRAFILTRATION                 |
| W       | – | WORKING UNITS                   |
| S       | – | STANDBY UNITS                   |
| N.PIT   | – | NEUTRALIZATION PIT              |

| Stream No           | 1                               | 2                                                       | 3                                     |
|---------------------|---------------------------------|---------------------------------------------------------|---------------------------------------|
| Description         | Filtered water from HPSF header | UF filtered water to 1st pass RO Cartridge filter inlet | UF backwash waste to brine water tank |
| Flow rate m3/hr     | 2526                            | 2400                                                    | ~126                                  |
| Temp °C             | 25-30                           | 25-30                                                   | 25-30                                 |
| Normal pres bar (g) | 3                               | 2                                                       | 2                                     |
| Turbidity (NTU)     | Nil                             | ≤1                                                      | -                                     |
| SDI <sub>15</sub>   | -                               | ≤3                                                      | -                                     |
| pH                  | 7.3                             | 7.3                                                     | 7.3                                   |

BULK CHEMICAL STORAGE SYSTEM



|                                                                                                                                                                                              |                                             |       |                                                        |                       |                  |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------|--------------------------------------------------------|-----------------------|------------------|------------------|
| CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company. | TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT |       | NTECL VALLUR TPP (3X500 MW)<br>UF PLANT - 2400 CU.M/HR |                       |                  |                  |
|                                                                                                                                                                                              |                                             |       | DRN                                                    | NAME<br>S.VIVEK       | SIGN<br>S. Vivek | DATE<br>27.05.17 |
|                                                                                                                                                                                              |                                             |       | CHD                                                    | G.RAJENDIRAN          | S. Rajendiran    | 27.05.17         |
|                                                                                                                                                                                              |                                             |       | APPD                                                   | M.NATARAJAN           | M. Natarajan     | 27.05.17         |
| DEPT<br>9776                                                                                                                                                                                 | GRADE OF UNTOI.DIM<br>PR: QA: 500           | SCALE | WEIGHT (KG).                                           | REF. TO ASSY/OLD DRG. |                  | ITEM NO.         |
| CODE<br>NP                                                                                                                                                                                   |                                             |       |                                                        |                       |                  | NO. OF ITEMS     |
| TITLE                                                                                                                                                                                        |                                             |       | CARD CODE                                              | DRAWING NO.           |                  | REV              |
| PROCESS FLOW DIAGRAM                                                                                                                                                                         |                                             |       | U 01                                                   | 3-WT-220-00829        |                  | 00               |



N: 2367.45  
W: 686.34

UF SHED LAYOUT - PLAN

NOTES:

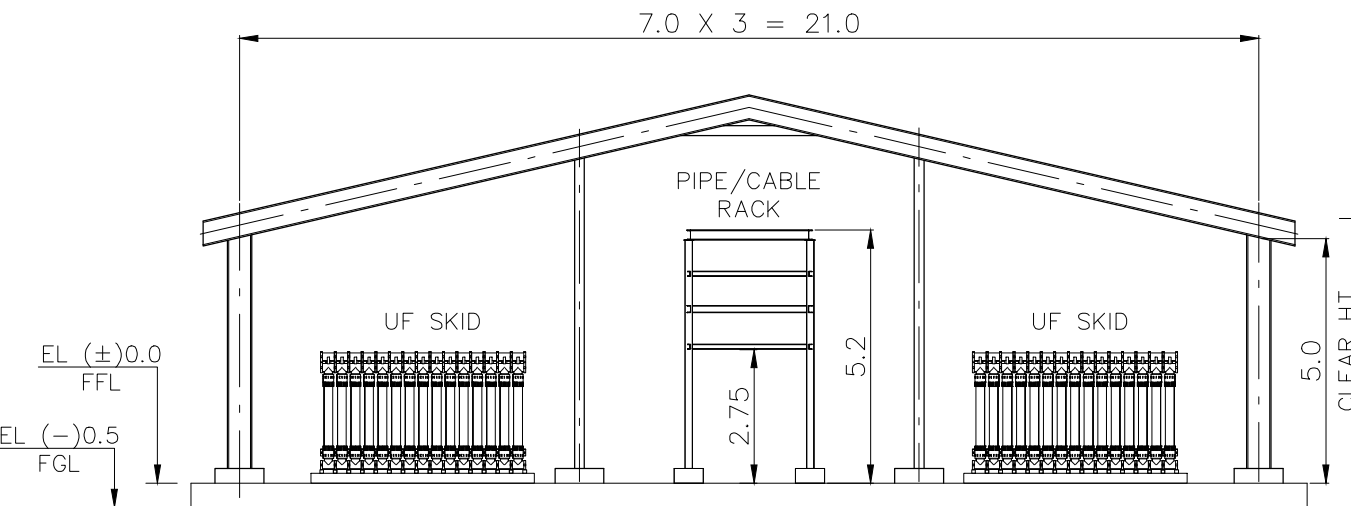
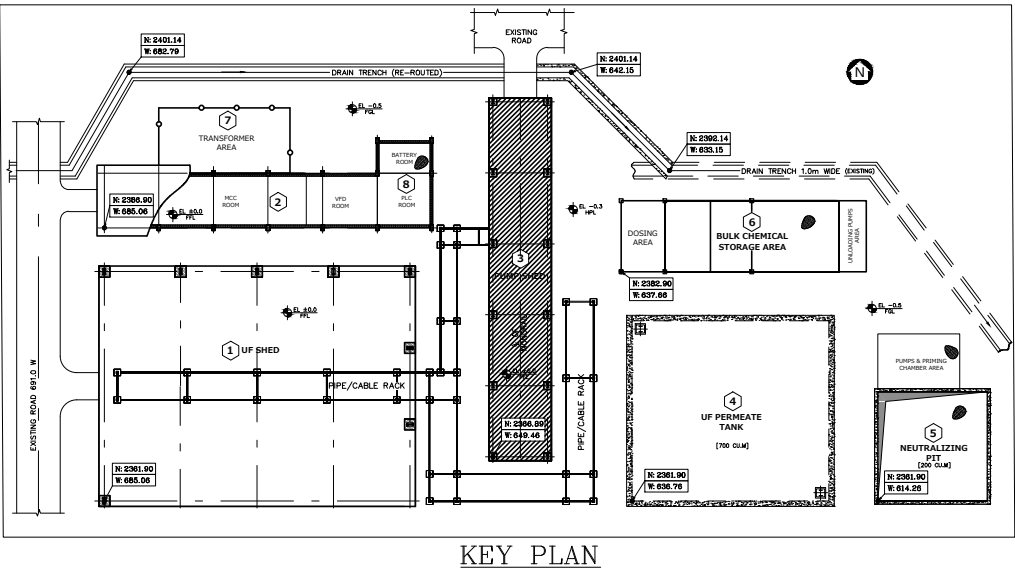
- ALL DIMENSIONS, CO-ORDINATES, ELEVATIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- UF PLANT AREA FGL IS (-)0.5 M WHICH CORRESPONDS TO RL (+)4.1 M AND THE FFL IS 0.0 WHICH CORRESPONDS TO RL (+)4.6 M.
- THE SKID ARRANGEMENT SHOWN IS INDICATIVE ONLY. BIDDER TO SUBMIT THE SKID ARRANGEMENT ACCOMMODATING WITHIN THE SPACE AVAILABLE.

LEGEND:

- EL - ELEVATION  
FFL - FINISHED FLOOR LEVEL  
FGL - FINISHED GRADED LEVEL  
HT - HEIGHT

| REV  | DATE | ALTERED : |
|------|------|-----------|
|      |      | CHECKED : |
| ZONE |      |           |

|                                                                                                                                                                                              |                                                                                         |  |                                                        |                               |                  |                  |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--|--------------------------------------------------------|-------------------------------|------------------|------------------|---------------|
| CAUTION: The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company. | TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT                                             |  | NTECL VALLUR TPP (3X500 MW)<br>UF PLANT - 2400 CU.M/HR |                               |                  |                  |               |
|                                                                                                                                                                                              | BHARAT HEAVY ELECTRICALS LTD.,<br>UNIT: BOILER AUXILIARIES PLANT,<br>RANIPET - 632 406. |  | DRN                                                    | NAME<br>S.VIVEK               | SIGN<br>S. Vivek | DATE<br>15.11.17 | NO.OF<br>VAR. |
|                                                                                                                                                                                              | DEPT 9776 GRADE OF UNTOL.DIM                                                            |  | CHD                                                    | G.RAJENDIRAN                  | S. Rajendiran    | 15.11.17         |               |
|                                                                                                                                                                                              | CODE NP PR: QA: 500                                                                     |  | APPD                                                   | G.RAJENDIRAN                  | S. Rajendiran    | 15.11.17         |               |
|                                                                                                                                                                                              | TITLE<br>UF SHED LAYOUT                                                                 |  | CARD CODE<br>U 01                                      | DRAWING NO.<br>3-WT-220-00828 |                  | REV<br>01        |               |



SECTION X-X

PRELIMINARY

FOR INDENT PURPOSE ONLY

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

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

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

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

Company's Seal/Stamp:-