



BHARAT HEAVY ELECTRICALS LTD.
 (A GOVT. OF INDIA UNDERTAKING)
 P.O BHEL Jhansi - 284129, INDIA
 Tel.:0510-277001/2412260 Fax: 2412120
 Email : mmx@bheljhs.co.in

PURCHASE ENQUIRY

ENQ NO/DT: E1810015 10/12/21
 REV NO/DT: 0 10/12/21

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PLEASE SEND YOUR BEST QUOTATION AS PER TERMS & CONDITIONS AND REMARK MENTIONED UNDERNEATH.

Enq Due on:	07-01-22 FRIDAY
Close at:	13:15 Open at:14:00
Matcat:	181004 RIP BUSHING
Validity:	120 days from Technical bid opening date
IEM:	
TOP:	See Special Remarks
RA:	BHEL reserves the right to conduct RA
Est. Value:	Item wise
Bid Type:	TWO BID
Tot Item:	5
Delivery:	FOR Jhansi
E-Proc:	No

REQUIRED:

ITEM NO : 1 PSL QTY/UM: 18.00 NO
 MATL CODE : TR172696A606 PO QTY /UM: 18.00 NO
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
245 KV 1250 AMP 300CT LENGTH RIP H.V. BUSHING AS PER ATTACHED ANNEXURE (BUSHING SUITABLE FOR FAULT CURENT OF 50 KA)	APR-22	6.00
	MAY-22	6.00
	JUN-22	6.00

ITEM NO : 2 PSL QTY/UM: 18.00 NO
 MATL CODE : TR172696A607 PO QTY /UM: 18.00 NO
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
145 KV 1250 AMP 300CT LENGTH RIP I.V. BUSHING AS PER ATTACHED ANNEXURE. (BUSHING SUITABLE FOR FAULT CURRENT OF 40 KA)	APR-22	6.00
	MAY-22	6.00
	JUN-22	6.00

ITEM NO : 3 PSL QTY/UM: 6.00 NO
 MATL CODE : TR172696C601 PO QTY /UM: 6.00 NO
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
245KV,1250 AMP,300CT LENGTH RIP HV SPARE BUSHING AS PER ATTACHED ANNEXURE. (BUSHING SUITABLE FOR FAULT CURRENT OF 50 KA)	JUN-22	6.00

ITEM NO : 4 PSL QTY/UM: 6.00 NO
 MATL CODE : TR172696C602 PO QTY /UM: 6.00 NO
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
145KV,1250 AMP,300CT LENGTH RIP I.V SPARE BUSHING AS PER ATTACHED ANNERURE. (BUSHING SUITABLE FOR FAULT CURRENT OF 40 KA)	JUN-22	6.00

ITEM NO : 5 PSL QTY/UM: 18.00 NO
 MATL CODE : TR172696A608 PO QTY /UM: 18.00 NO
 DESTINATION: JS



JSC140/M2053

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DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
52KV,800AMPS 300CT LENGHT RIP	APR-22	6.00
T.V. BUSHING AS PER ATTACHED	MAY-22	6.00
ANNEXURE (BUSHING SUITABLE FOR FAULT CURRENT OF 25 KA)	JUN-22	6.00

SPECIAL REMARKS:

1. THE BIDDER IS INFORMED THAT THE GENERAL TERMS & CONDITIONS OF ENQUIRY WHICH ARE UPLOADED AT https://www.bheljhs.co.in/index_en.php. ARE TO BE READ BY THE BIDDER BEFORE SUBMITTING QUOTE IN THE ENQUIRY. BHEL SHALL CONSTRUE THE PARTICIPATION BY THE BIDDER IN THE ENQUIRY AS ACCEPTANCE TO THE GENERAL TERMS & CONDITIONS OF ENQUIRY.
2. ENQUIRY IS BEING FLOATED IN "TWO BID " SYSTEMS. PLEASE SUBMIT YOUR OFFER IN TWO SEPARATE ENVELOPES (A & B) AS PER DETAILS GIVEN BELOW:-
ENVELOPE "A" SHOULD CONTAIN YOUR TECHNO - COMMERCIAL BID OFFER ALONGWITH BLANK PRICE BID (ITEM WISE) I.E. PRICE BID WITH RATES BLANK DULY FILLED PQR, PQR SUPPORING DOCUMENTS AND SIGNED COPIES OF SCHEDULE-ITO VIII.
ALL THE DOCUMENTS SHOULD BE CLEAR AND AUTHORIZED.PLEASE INDICATE CLEARLY ON THE COVER OF ENVELOPE "TECHNO - COMMERCIAL OFFER " ENQUIRY NO, ENQUIRY ITEM NO WITH ENQUIRY DUE DATE. PLEASE ENSURE BLANK PRICE BID IS WITHOUT RATES. OTHERWISE OFFER WILL BE BY-PASSED.
- ENVELOPE "B" SHOULD CONTAIN PRICE BID ITEM WISE KEPT IN SEALED ENVELOPE AND INDICATE CLEARLY ON THE COVER OF ENVELOPE "PRICE BID" ENQUIRY NO, ENQUIRY ITEM NO AND DUE DATE.
- ITEM WISE PRICE BID SHALL BE AS BELOW
A) ONE PRICE BID FOR ENQUIRY ITEM 1 & 3 (AS BOTH THE ITEMS ARE SIMILAR)
B) ONE PRICE BID FOR ENQUIRY ITEM 2 & 4 (AS BOTH THE ITEMS ARE SIMILAR)
C) ONE PRICE BID FOR ENQUIRY ITEM 5
- ENVELOPE A + B SHOULD BE KEPT IN SEPERATE SEALED ENVELOPE ON WHICH ENQUIRY NO. AND DUE DATE IS TO BE MENTIONED ON COVER.
3. PLEASE SEND THE TECHNICAL BID (PART A) & PRICE BID (PART-B) AS PER ENCLOSED ANNEXURES ONLY.
4. PLEASE QUOTE WITH FIRM RATES OTHERWISE OFFER WILL BE BY-PASSED.
5. GUARANTEE AND TEST CERTIFICATE IS REQUIRED IN TRIPLICATE ALONGWITH EACH SUPPLY.
6. TYPE TEST REPORT TO BE SUBMITTED ALONG WITH THE OFFER WHICH IS NOT OLDER THAN FIVE YEARS.
7. DRAWING WITH DETAILS SHALL BE SUBMITTED ALONGWITH OFFER. PLEASE SUBMIT DRAWINGS ALONGWITH TECHNO - COMMERCIAL OFFER.
8. ALL THE TERMS AND CONDITIONS OF THE CONTRACT WITH RESPECT TO TAXES AND DUTIES ARE SUBJECT TO THE NEW TAXATION LAWS (E.G. GST). THE TERMS AND CONDITIONS WILL BE MODIFIED IN ACCORDANCE WITH THE PROVISIONS OF NEW LAWS E.G. GST.
9. SUCCESSFUL VENDOR TO START MANUFACTURING ONLY AFTER DRAWING APPROVAL FROM BHEL.
10. LOADING SHALL BE APPLICABLE FOR NON ACCEPTANCE OF NIT TERMS AND CONDITIONS.
11. INSPECTION BY CUSTOMER/TPI AT SUPPLIER WORKS.
12. PREFERENCE TO MAKE IN INDIA CLAUSE" AS MENTIONED IN SERIAL NUMBER 23 OF GTC JHS2055 REV03.
13. EVALUATION OF ENQUIRY SHALL BE ON ITEM WISE. CLUBBING OF ENQUIRY ITEM



JSC140/M2053

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- QUANTITY WILL BE AS BELOW
A) -ENQUIRY ITEM 1 & 3-24 NOS (ITEM -1-18 NOS& ITEM-3-6 NOS) ARE NONDIVIDABLE I.E. REQUIRED FROM ONE VENDOR ONLY.
B) -ENQUIRY ITEM 2 & 4-24 NOS (ITEM -2-18 NOS& ITEM-4-6 NOS) ARE NONDIVIDABLE I.E. REQUIRED FROM ONE VENDOR ONLY
C) -ENQUIRY ITEM 5- 18 NOS ARE NONDIVIDABLE I.E. REQUIRED FROM ONE VENDOR ONLY
14.NO TENDER FEES SHALL BE APPLICABLE.
15.THE TENDERS DULY FILLED IN AND COMPLETE IN ALL RESPECTS TO BE DROPPED IN THE TENDER BOX LOCATED AT CISF GATE OF OUR ADMINISTRATIVE BUILDING TILL 13.15 HRS ON THE TENDER OPENING DATE AS NOTED IN THE COVERING LETTER.
16.TENDER/QUOTATION MAY BE SENT THROUGH EMAIL ON BHEL DESIGNATED EMAIL ID ONLY.THE DESIGNATED EMAIL ID IS tenderbox.jhs@bhel.in.
17.BHEL SHALL BE RESORTING TO REVERSE AUCTION (RA) (GUIDELINES AS AVAILABLE ON WWW.BHEL.COM) FOR THIS TENDER. RA SHALL BE CONDUCTED AMONG THE TECHNO-COMMERCIALY QUALIFIED BIDDERS PRICE BIDS OF ALL TECHNO-COMMERCIALY QUALIFIED BIDDERS SHALL BE OPENED AND SAME SHALL BE CONSIDERED FOR RA. IN CASE ANY BIDDER(S) DO(ES) NOT PARTICIPATE IN ONLINE REVERSE AUCTION, THEIR SEALED ENVELOPE PRICE BID ALONG WITH APPLICABLE LOADING, IF ANY, SHALL BE CONSIDERED FOR RANKING.
18.TENDER EVALUATION WILL BE IN INR ON TOTAL COST TO BHEL ON FOR BHEL JHANSI BASIS.
19.DELIVERY QUOTED IN ENQUIRY IS TENTATIVE ONLY.SUPPLIERS TO QUOTE THEIR OWN DELIVERY TIME .
20.BEFORE START OF MANUFACTURING, SUPPLIER HAS TO TAKE MANUFACTURING CLEARANCE FROM BHEL.
21.BUSHING SHALL BE TESTED AS PER IEC-60137.BUSHING TEST REPORTS TO BE SUPPLIED ALONG WITH EACH BUSHING.
22.QUANTITY UNDER INDIVIDUAL ITEM MAY VARY WITHIN +/-30 % DURING EXECUTION.
23.SUPPLIER SHALL BE IN APPROVED VENDOR LIST OF PGCIL.
24.PGCIL APPROVED QUALITY PLAN IS APPLICABLE FOR RIP BUSHING.

THE QUOTATION MUST BE SEALED AND BE SENT IN DOUBLE ENVELOPE.
THE INNER ENVELOPE SHOULD BEAR ENQUIRY NUMBER & DUE DATE AT THE TOP.

In case the bidder has not submitted PAN No, TIN No. and E-mail ID, the bidder has to submit the same along with the copy of PAN No and TIN No. Else his offer will be liable to be rejected.

If you are not in a position to quote due to any reason, you must send regret letter titled enquiry no. etc, failing which you may not be considered for sending future enquiries.

ENCLOSERS:



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FOR AND ON BEHALF OF
BHARAT HEAVY ELECTRICALS LTD

Rahul
10/12/21
RAHUL KUMAR
SR ENGINEER (TRFR MM)
Email:-rahulkumar.r@bhel.in

***** END OF PURCHASE ENQUIRY *****

NOTE :

- * THE BIDDER IS INFORMED THAT THE GENERAL TERMS & CONDITIONS OF ENQUIRY (JHS 2055A Rev 03) WHICH ARE UPLOADED AT <https://www.bheljhs.co.in/apps/sip/index.php> AT (TERMS & CONDITION -> FOR ENQUIRY) LINK, ARE TO BE READ BY THE BIDDER BEFORE SUBMITTING QUOTE IN THE ENQUIRY. BHEL SHALL CONSTRUE THE PARTICIPATION BY THE BIDDER IN ENQUIRY AS ACCEPTANCE TO THE GENERAL TERMS AND CONDITIONS OF ENQUIRY.
- * SUPPLIERS ARE REQUESTED TO INFORM US WITH VALID CERTIFICATE, IF THEY ARE REGISTERED UNDER MSMED ACT'2006. (APPLICABLE FOR INDIAN SUPPLIERS ONLY) .
- * FOR SUPPLIERS SUPPLYING FROM OUTSIDE THE LOCAL AREA OF BHEL JHANSI, ENTRY TAX WILL BE APPLICABLE. SUPPLIERS SHOULD NECESSARILY INDICATE RATE OF ENTRY TAX SEPARATELY WHEREVER APPLICABLE. THEY SHOULD ALSO MENTION THE ENTRY TAX CHARGED SEPARATELY IN THE INVOICE.
- * FOR SUPPLIERS SUPPLYING FROM OUTSIDE UP, IN CASE THE OFFER IS SILENT ON ENTRY TAX, IT SHALL BE LOADED SUITABLY WITH THE APPLICABLE RATES
- * IN CASE IF THERE IS ANY DIFFERENCE BETWEEN THE 'SPECIAL REMARKS/ANNEXURES' OF THE ENQUIRY AND THE PREPRINTED TERMS & CONDITIONS (REF JSC140/M2053), THE REQUIREMENT GIVEN IN REMARKS WILL PREVAIL.
- * Reference Sl. No. 2(B) of General Terms and Conditions regarding option for offer submission through Email addressed to tenderbox.jhs@bhel.in , please note that the maximum mail size including attachments should not exceed 20 MB , otherwise the offer shall not be delivered due to size limitation and bidder sending mail attachments more than 20 MB will have no claim whatsoever on the subject tender . Also due to any technical snag , if offer has not reached tenderbox.jhs@bhel.in , it will be bidder's sole responsibility to ensure offer submission through alternate routes before the due date and time .BHEL will not entertain any such claim for non-receipt of offer on time .



Bharat Heavy Electricals Limited

)A Govt of India Undertaking(
MM Department, Sub post Office: BHEL Jhansi 284120
Tel: 5102412554,9486369271

e-mail: shams@bhel.in; rahulkumar.r@bhel.in

PURCHASE ENQUIRY E1810015

TENDER DOCUMENT FOR PROCUREMENT OF RIP BUSHING

SL.	Description	Schedule	Page. No
1	Terms & Conditions of the Enquiry	Schedule-I	2-7
2	Pre-Qualifying Requirement (PQR)	Schedule-II	8
3	Techno Commercial Bid (Part - A)	Schedule-III	9-12
4	Price Bids (Part-B	Schedule-IV	13-15
5	Annexure	Schedule-V	16-33
6	Business Rules for reverse Auction.	Schedule-VI	34-42
7	Bidders Sharing Land Boundary with India	Schedule-VII	43-45
8	Integrity Pact	Schedule-VIII	46-50

(SCHEDULE- I)

Terms & Conditions for supply of RIP BUSHING Enquiry No. E1810015

1. **General:** Sealed tenders are invited in Two-Part Bid system for purchase of RIP BUSHING as per Specifications and terms & conditions mentioned in the **Schedules -“I to VIII”**. The supplies against this enquiry shall be subject to our General Terms and conditions of enquiry and PO (JHS2055A Rev.03 at https://jhs.bhel.com/apps/sip/eng/terms/eng_tems_current.pdf). In addition, the terms and conditions given under this annexure shall specifically apply to this enquiry. If any difference between the General Terms and conditions of enquiry and PO and the conditions included in this annexure, the conditions included in this annexure shall prevail. Make in India and other Guidelines issued by Gov,t of India/Ministry will be applicable to this Enquiry .
The offer of the bidders who are in the banned list as also the offer of the bidders who engage the services of the banned firms shall be rejected. List of banned firms is available on BHEL website: www.bhel.com. Likewise, offers of those bidder(s) will not be considered who have been suspended (under hold / delisting) by BHEL, Jhansi during the given period.

Lot wise quantity and delivery schedule indicated in the enquiry sheet is tentative. Actual procurement will be carried out progressively as per requirement of BHEL.

2. **Procedure for Bid submission:** - Offer shall be submitted by the bidders in two parts: -
-Part-A Techno-Commercial bid
-Part-B Price Bid(Total three price Bids one for Item#1 &3, second for Item#2 &4 and third for item#5.

Both Part-A & Part-B of the offer shall be kept in two separate sealed envelopes duly super scribed as Part-A “Technical cum commercial bid” and Part-B “Price Bid”. The enquiry number, Enquiry Item and due date shall also be super scribed on both the envelope.

Part –A of the bid shall complete details of the product offered, acceptance to the specifications, all techno commercial terms and conditions of the **Schedules I to VIII**.

In case it becomes necessary to deviate in any of the above, deviations must be clearly brought out in bid Part-A of the offer. Copy of unpriced bid Part-B with status “**Quoted (Q) & Unquoted (NQ)**” must accompany bid Part-A. **Evaluation of tender will be item wise. Required quantity in Item 1 & 3 and item 2& 4 to be clubbed for evaluation i.e. Item -1 & 3-24 Nos, Item 2 & 4-24 Nos and item-5-18 Nos**

Supplier has to submit price Bid shall be Enquiry item wise. I.e. total three price Bids. One for Item # 1& 3, second for Item# 2& 4 and third for item# 5

Bid Opening: - The “Techno-commercial” part of the bid i.e. Bid Part-A of the offers shall be opened on the due date of tender opening. Clarifications, wherever required on this part, shall be obtained from the bidders for their evaluation. The Price bid

Part-B of such vendors alone shall be opened whose techno-commercial bids are found acceptable.

Bid evaluation: The bid shall be evaluated on total delivered cost to BHEL (landed cost net of input tax credit) taking into account all duties / taxes / Cess like GST as per prevailing structure on date of tender enquiry (bid Part-I). Bidders may note that quoted rates shall be loaded for any deviation from the terms & conditions given in this enquiry, to arrive at landed cost and same shall be communicated to techno-commercially suitable bidders before price bid opening. For deciding L1, L2 etc Reverse **Auction** shall be conducted. Reverse auction will be conducted in similar way as mentioned upside i.e. after clubbing required quantity in Item1 & Item3 (Total 24 Nos), Item 2 & Item4(Total 24 Nos) and Item 5 (18 Nos).

Reverse Auction: - BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among the techno commercially qualified bidders.

Price bids of all techno-commercially qualified bidders shall be opened before the RA to decide the Floor Price. Bidders shall be informed the date of Price bid opening.

Before price bid opening / RA (reverse auction) all formalities for registration has to be completed by the bidders as per new supplier link at www.bhel.com

In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.”

3. **Pre-Qualification Criteria**

Please refer attached Schedule-II Offers of those Bidders who meet the Pre-qualification criteria will be accepted. Any deviation from these shall render offer submitted by bidder as rejected.

4. **Technical Parameters and Tendered Quantity:** - RIP BUSHING shall conform to the purchase specifications. BHEL QA plan and / or customer approved QA plan to be followed strictly. Tentative quantity breaks up is mentioned below.

ENQUIRY ITEM	DESCRIPTION	QUANTITY	UOM
1&3	245 KV 1250 AMP 300CT LENGTH RIP H.V. BUSHING AS PER ATTACHED ANNEXURE (BUSHING SUITABLE FOR FAULT CURENT OF 50 KA)	24	Nos
2&4	145 KV 1250 AMP 300CT LENGTH RIP I.V. BUSHING AS PER ATTACHED ANNEXURE. (BUSHING SUITABLE FOR FAULT CURRENT OF 40 KA)	24	Nos
5	52KV,800AMPS 300CT LENGHT RIP T.V. BUSHING AS PER ATTACHED ANNEXURE (BUSHING SUITABLE FOR FAULT CURRENT OF 25 KA)	18	Nos

At the time of supply, TC/GC/CC and other Documents as per Schedule of the PO must accompany each lot.

Enquiry item 1 & 3 (24 Nos) are undividable and required from one supplier only.
Enquiry item 2 & 4(24 Nos) are undividable and required from one supplier only.
Enquiry Item 5 (18 Nos) are undividable and required from one supplier only.

5. **Pricing Terms:** - Material will be supplied on finished basis and rate so quoted shall be firm during validity of contract.
6. **Transit Insurance:** - By the bidder. In case of insurance by BHEL, bidders shall have to comply with our general terms and conditions in this regard. Also bidder shall have to render all necessary assistance needed by BHEL to recover the damages from the insurers, in the event of claim arising under policy.
7. **Terms of delivery:** - In case of foreign bidders, acceptable terms of delivery are F.O.B Load port or CIF basis only. Ex-Works delivery are not acceptable. In case of indigenous bidders acceptable delivery terms are F.O.R BHEL, Jhansi basis. Any deviation from the above shall attract loading while evaluation of bids.

Bidders shall commit suitable delivery on F.O.B load port or CIF basis (In case of foreign Bidders) /on door delivery basis (In case of indigenous vendors). Bidders may note that delivery beyond committed schedule will attract penalty for delay. For Foreign Bidders, date of Bill of Lading shall be taken as actual date of delivery. In case of Indigenous bidders, the date of delivery at named destination in India shall be taken as contractual delivery completion date where delivery terms are FOR destination. In case of 'Ex-works' delivery terms, the date of LR / RR shall be the contractual delivery completion date.

In case of F.O.B delivery by foreign bidder, the loading will be done as per applicable rate of BHEL contract with Freight Forwarder. In the event of bidder offering CFR or CIF delivery terms for delivery in FCL (Full Container Load), the Bidder shall provide 14 days' time free of detention from the date of delivery at delivery port. Wherever the detention free period offered is less than 14 days, the bids shall be loaded for the period short of 14 days' period. Port congestion charges or any additional charges claimed by shipping line till delivery at destination port shall be to the Seller's account. In case of CIF/FOB delivery, Load port charges (THC, DO, CHA charges etc.) shall be added as per BHEL CHA contract for arriving L1 status.

To have an equitable comparison amongst the vendors in the tender, freight charges from dispatch city to BHEL, Jhansi shall be loaded on quoted prices as given below.

Description/Type of bushing	No of bushings in truck of 7 MT	Applicable FTL rates (Rs./MT-Km)	Distance from dispatch city to Jhansi+15 Km	Total Freight charges	Freight charges per Bushings
A	B	C	D	E=C*D*7	F=E/B

Or

Signature of Supplier with seal and Date

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Description/Type of bushing	No of bushings in truck of 15 MT	Applicable FTL rates Rs./MT-Km)	Distance from dispatch city to Jhansi+15 Km	Total Freight charges	Freight charges per Bushings
A	B	C	D	E=C*D*15	F=E/B

*Actual value of Loading will be informed before Price Bid opening.

*Above loading way is tentative and depends on BHEL discretion.

8. **Purchase from customer approved vendors:** - Bidders may note that RIP BUSHING for most of the customers is to be sourced from their approved vendors only. In those cases, pertaining to requirement of such contracts, BHEL would open the price Bid and place purchase orders on the approved vendors of respective customer only. Clause no 23 (Purchase Preference to Make in India) as mentioned in GTC JHS2055 Rev03 will prevail for distribution. Local supplier will be preferred in Enquiry distribution accordingly.
9. **Inspection/Quality Checks and Quality Records:** - Pre-dispatch /source inspection/ Third Party Inspection may be carried out at vendor works as per practice in vogue or Customer requirement. However, vendor shall maintain all records of input materials and finished RIP BUSHING thereby establishing traceability. BHEL may conduct quality audit at supplier works for ensuring implementation of Quality system. Vendor shall carry out all the Electrical & Mechanical tests as called for in the specifications and submit Test certificates for each lot of dispatch.
10. All costs related to inspections and re-inspections shall be borne by the Seller. In case of foreign vendors, the cost of third party inspection and testing charges, where called for, shall be deemed to be included in the quoted price. Seller shall be responsible to provide assistance such as labour, materials, electricity, fuels, stores, apparatus, instruments at his cost, as may be required and as may be reasonably demanded to carry out such tests effectively.
11. **Replacement of rejected Goods:** - Final inspection for acceptance of quality shall be at BHEL's works after receipt of material and results shall be binding on the suppliers. In case of rejection due to noncompliance to agreed specification and for the reasons attributable to the vendor, the materials shall be replaced by vendor free of charge on "FOR BHEL works basis" including interalia cost elements such as total transportation, insurance and other taxes / levies etc. as applicable. The rejected goods shall be subsequently returned to the vendor at his cost.
12. **Taxes & Duties:** - GST as applicable within India only will be paid / reimbursed by BHEL and same will be loaded for price comparison on delivered cost to BHEL (i.e. landed cost net of input tax credit). Custom Duty will be applicable on foreign Imports.

13. **Guarantee:** - RIP BUSHING under this tender shall be free from any kind of manufacturing defects and shall be under guarantee for a period of 24 months from the date of dispatch or 18 months from the date of commissioning, whichever is earlier. In case of non-acceptance of Guarantee Term There will be 1% per month loading in offer price per month, i.e. if a vendor accepts 18 months of warranty in place of NIT conditions of 24 months' warranty, then loading in offer price will be = (24 months-18 months) x 1% = 6%.
14. In case of non-acceptance of Risk Purchase, loading of 10 % shall be done on the Supplier quoted rates to derive L-1 status.
15. **Payments Terms:** - Any deviation from the following payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate (as on date of Part I bid opening) + 6%, for the purpose of bid evaluation

In case of Indigenous Bidders: -100% payment within 90 days of receipt of material (45 days for MSE / NSIC registered suppliers as per relevant act in force), subject to acceptance of material at BHEL, on direct presentation of the documents.

In case LC payment terms for indigenous bidders are accepted by the competent authority, offers with interest free Usance period less than 120 days (45 days for MSEs vendors & subject to submission of Udyog Aadhar Memorandum) shall be liable for rejection.

In case of Foreign Bidders: -100 % payment will be considered by irrevocable and unconfirmed Usance LC with 120 days' interest free credit to be reckoned from the date of B/L.

16. **Validity of Offer:** - Offer should be valid for a period of 120 days from the date of techno-commercial bid opening date (part-1) for finalization of the contract.
17. **Levy of Penalty for delayed performance:** - As per Clause no: 8 of General terms & Conditions of enquiry rev 03.
18. In case of non-acceptance of LD Clause, the suitable loading up to 10% maximum shall be done on supplier's quoted rate to derive the L-1 Status.
19. Commercial Conditions quoted by the vendor in any place including as stated in bidder's 'General Terms and Conditions of enquiry' if any, shall not be binding on the Purchaser and the conditions contained in this annexure, including General terms & Conditions rev 03 of enquiry, if any, for this enquiry shall only prevail.
20. **Bank Charges:** - For overseas bidders, all bank charges except charges of LC opening bank, which shall be loaded while bid evaluation, shall be to the bidders account only.
21. **Fumigation:** - All imported consignment in wooden packing shall be subject to fumigation as per statutory requirement of Govt. of India and bidder shall furnish 'Phytosanitary Certificate 'or a declaration that wood-packing material used in packing is in accordance with IPPC standard ISPM No.15 and has been labelled compliance with IPPC mark by manufacture.

22. **Agency Agreement:** - Agency agreement from foreign supplier for their Indian agent is necessary and should come along with the bid Part-A. The agreement between foreign supplier and their Indian agent should contain relationship, mutual interest in the business, commission amount or general retainer fee, services to be rendered by Indian agent etc.
23. Bidders may note that suitable loading will be done for arriving at the landed cost net of ITC price for any deviation from General terms & Conditions as pre-printed overleaf of the enquiry.
24. **Applicable Laws and Jurisdiction of Courts:** - Indian laws both substantive and procedural, for the time being in force, including modifications thereto, shall govern the Contract including Arbitration proceedings. The competent Courts at Jhansi in the State of Uttar Pradesh, India shall have sole jurisdiction.
25. **Benefits earmarked to Suppliers for Purchase Under 'Make In India':** -
As part of minimizing import content under Gov, t of India guidelines and to encourage and promote indigenously manufactured goods within India and services provided by sources within India, bidders who manufacture goods and provide services within India (Local Suppliers) are given purchase preference and are entitled to benefits in the tender. For further clarifications Please refer GTC JHS 2055A Rev03.
26. **Bidders sharing Land Boundary with India:** -
Bushings are required for Turnkey Project. Hence suppliers from the countries sharing land boundary from India have to comply Circulars No.49 issued by Corporate SS & P.
27. Updated list of countries to which lines of Credit have been extended or in which development projects are undertaken are available on the Ministry of External affairs website (<http://www.mea.gov.in/>).

(SCHEDULE-II) PRE QUALIFYING REQUIREMENT FOR POF ENQUIRY NO. E1810015

28.06.21

Initiator: Kaushalendra Singh

PI Estimate=

N

PQR for PI-140604139 / Enquiry-

NA

Annexure - III



Pre-Qualifying Requirement for Procurement of '145 KV Resin Impregnated Paper Bushings' – PI:140604139/

Sl. No.	REQUIREMENT	Bidder's Response
1	<p>Bidders should be the MANUFACTURER of '145 KV Resin Impregnated Paper Bushings'</p> <p>Bidders to provide Self Undertaking on their Letter Head that: A: Bidder is capable of executing the job under captioned enquiry. B: Foreign vendor or distributor of foreign vendor is meeting the requirement as per Deptt for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry (DPIIT), letter D.O. No.P-45021/2/2017-PP(BE-II)(E-1588) dated 8th June, 2020 and subsequent circular/ amendment applicable at the date of Technical bid open.</p>	<p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> Submitted</p>
2	<p>Customer Approval:- Bidders should be approved by M/s Power Grid Corporation of India Limited (POWERGRID) Bidder to submit the approval Cercificate to supply this item for above Customer.</p>	<p><input type="checkbox"/> YES</p>
5	<p>New vendors who are not registered with BHEL, Jhansi should submit duly filled "Supplier Registration Form (SRF)" along with the requested documents. The SRF is available on line on our website www.bhel.com.</p>	<p><input type="checkbox"/> Document Submitted</p>

- We agree that our bid is liable to be rejected in case (a) the relevant information is not filled, (b) documentation is incomplete, (c) there are false declarations, and (d) if we do not meet the PQR.
- Criteria at Sl. No. 5 is desirable. Other are mandatory.
- Supporting documents for the details filled above have been submitted.

(Signature of the Supplier with Name, Designation & Seal)



Bharat Heavy Electricals Limited

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 MM Department, Sub post Office: BHEL Jhansi 284120
 Tel: 5102412554,9486369271
 e-mail: shams@bhel.in; rahulkumar.r@bhel.in

(SCHEDULE-III)

Acceptance to salient Terms & Conditions of the Enquiry E1810015 i.e. Techno Commercial Bid

Important : This format is to be submitted in original, along with Part-A of bid, duly signed by the bidders, as proof of acceptance.

Sl.No	DESCRIPTION	TO BE FILLED BY THE VENDOR
A-	Name of the Supplier with Telephone No./Fax No./Email	
B-	Name and Designation of Contact person	
C-	Address of the works at which inspection/delivery is offered.	

Sl. no.	Particulars	Supplier's Confirmation
1-	Complete acceptance to Technical terms & conditions including Technical/Purchase Specs as mentioned in Schedule-I to VIII	<input type="checkbox"/> Accepted
2-	Participation by the Bidders in the tender shall be construed as acceptance of the bidder to the General Terms and Conditions JHS2055A-Rev-03 uploaded at https://jhs.bhel.com/apps/sip/enq_terms/enq_tems_current.pdf We confirm that we have read the GTC with applicable revision, and accepts the same.	<input type="checkbox"/> Accepted
3-	Acceptance for finalization of price bid Part-B through online Bidding (Reverse Auction)	<input type="checkbox"/> Accepted
4-	Conformance / Test Certificate/Guarantee Certificate (along with supply) as specified in enquiry will be provided.	<input type="checkbox"/> Yes
5-	(a) Delivery period on FOB/CIF, /FOR basis from date of PO issue/Drawing approval, whichever is later.Days.

Signature of Supplier with seal and Date

	<p>(b) Vendor to indicate their monthly capacity /Supply rate also.</p> <p>(c) Supplier shall have minimum monthly capacity of total 20 Tonnes reserved for BHEL.</p>	<input type="checkbox"/> Accepted <input type="checkbox"/> Accepted
6-	<p>Taxes and Duties (For indigenous bidders only): -Extra as applicable.</p> <p>a). CGST (Mention N.A if not applicable)</p> <p>b). SGST (Mention N.A if not applicable)</p> <p>c). IGST (Mention N.A if not applicable)</p>	<input type="checkbox"/> Accepted a).....% b).....% c).....%
7-	<p>Taxes and Duties (For Foreign bidders only):-All taxes and duties in their country will be borne by them only and in India same shall be to BHEL account. Refer GTC (JHS2055A-Rev-03) for more detail and same shall prevail.</p>	<input type="checkbox"/> Accepted
8-	<p>Price Bid submitted as per attached price bid format only (Copy of blank price Bid is submitted).</p>	<input type="checkbox"/> Accepted
9-	<p>Acceptance for prices on firm basis and no PVC is applicable.</p>	<input type="checkbox"/> Accepted
10-	<p>Acceptance for prices finalization through reverse auction (R.A) i.e. Acceptance to participation in R.A</p>	<input type="checkbox"/> Accepted
11-	<p>a). Terms of delivery on F.O.R BHEL Jhansi basis (for indigenous bidders).</p> <p>b). Terms of delivery on F.O.B Load Port basis or CIF, basis. (For Foreign bidders) (Pl mention name of Load Port)</p>	<input type="checkbox"/> Accepted
12-	<p>Validity - Quoted prices are valid for 120 days from date of tender opening.</p>	<input type="checkbox"/> Accepted
13-	<p>Payment Terms (For indigenous bidders) - 100 % payment within 90 days (45 days for MSE / NSIC registered suppliers as per relevant act in force) from the date of receipt of material and submission of clear and admissible bill, subject to acceptance of material at BHEL, on direct presentation of the documents.</p>	<input type="checkbox"/> Accepted <input type="checkbox"/> Accepted

	In case of dispatch of material to site directly, site certification for receipt of materials is required unless otherwise provided for in the PO. Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate (as on date of Part I bid opening) + 6%, for the purpose of bid evaluation.	
14-	<p>Terms of payment (For Foreign Bidders): -</p> <p>Our Standard Payment terms is:</p> <p>(i) 100% Payment through CAD or</p> <p>(ii) 100% payment will be considered by irrevocable and unconfirmed Usance LC with 120 days' interest free credit, to be reckoned from the date of Bill of Lading</p> <p>In case of request for confirmed LC, confirmation charges shall be borne by the vendor.</p>	<p>(i) <input type="checkbox"/> Accepted</p> <p>(ii) <input type="checkbox"/> Accepted</p>
15-	No Advance payment terms will be accepted.	<input type="checkbox"/> Accepted
16-	<u>Liquidated Damage / Penalty</u> - Failure to supply by the time specified in the order will make the supplier liable to pay unconditional penalty of 1/2% of the price of the goods in arrear (delayed and not supplied) per week or part thereof, subject to a maximum of 10% of the order value unless agreed otherwise.	<input type="checkbox"/> Accepted
17-	<u>Risk Purchase</u> - If the material is not supplied within stipulated delivery indicated in PO, BHEL shall have the option to purchase the material from other sources at the supplier's risk & cost.	<input type="checkbox"/> Accepted
18-	<u>Guarantee:</u> In Case an order is placed, supplier shall be required to guarantee for smooth and satisfactory performance of the equipment for a period of 24 months from the date of dispatch or 18 months from the date of commissioning whichever is later and certificate must be issued to this effect. Necessary instruction booklets for operation and maintenance are to be sent with supply, where applicable.	<input type="checkbox"/> Accepted

19-	Please furnish shipping Dimension & Weight of consignment in your offer.(For Foreign Suppliers)	No. of package ----- Dimension of each package 1- Length ----- 2- Width ----- 3- Height ----- 4- Weight -----
20-	"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."	<input type="checkbox"/> Accepted
21	a) For Foreign Bidders-No. of days to generate Bill of Lading after dispatch clearance. b) For Indigenous bidders- No of days to reach the material to BHEL, Jhansi after Dispatch clearance.DaysDays
22	Inspection Call from delivery date a. Foreign suppliers have to give inspection call 45 days (includes days taken by Inspector to attend the call and inspection duration) + no of days to generate bill of lading (Refer Clause 21a above) (Days may change based on Customer Inspection call system). b. Indian suppliers have to give inspection call 21 days (includes days taken by Inspector to attend the call and inspection duration) + No of days to reach the material to BHEL, Jhansi after dispatch clearance (Refer Clause 21b above). (Days may change based on Customer Inspection call system).	<input type="checkbox"/> Accepted <input type="checkbox"/> Accepted
23	Delivery period from LC Opening date. (For Foreign Suppliers) (In case payment through LC, should preferably be 60 days from LC opening date.)Days.

Signature of Supplier & seal :

Date :

Name of contact person :

Cell No. :

Landline with STD code & E-mail :

Signature of Supplier with seal and Date

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Bharat Heavy Electricals Limited

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(SCHEDULE-IV)

PRICE BID, PART - B FOR ENQUIRY NO. E1810015

Supplier Name & Address:

.....

Currency of Quotation (Applicable for Foreign bidders only):

Enquiry item no.	Quoted rate in figure (per number basis in INR / Foreign Currency)	Quoted rate in words (per number basis in INR / Foreign Currency)
Enq. # 1&3		

- Note:-**
1. By default, indigenous bidders' quotation will be in Indian Rupees (INR) and foreign bidders' will be in the currency quoted as above by them.
 2. The price bid submitted in any other fashion or by adding any condition (e.g. minimum order quantity, rates applicable for specified quantity, discount for quantity, rate based on slabs, rate based on terms of payment etc.), offer shall be straight way REJECTED even if, offer has been found technically & commercial acceptable before opening of price bid.

Signature of Supplier :

Name :

Designation :

Seal :

Signature of Supplier with seal and Date

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PRICE BID, PART - B FOR ENQUIRY NO. E1810015

Supplier Name & Address:

.....

Currency of Quotation (Applicable for Foreign bidders only):

Enquiry item no.	Quoted rate in figure (per number basis in INR / Foreign Currency)	Quoted rate in words (per number basis in INR / Foreign Currency)
Enq. # 2&4		

- Note:-**
1. By default, indigenous bidders' quotation will be in Indian Rupees (INR) and foreign bidders' will be in the currency quoted as above by them.
 2. The price bid submitted in any other fashion or by adding any condition (e.g. minimum order quantity, rates applicable for specified quantity, discount for quantity, rate based on slabs, rate based on terms of payment etc.), offer shall be straight way REJECTED even if, offer has been found technically & commercial acceptable before opening of price bid.

Signature of Supplier :

Name :

Designation :

Seal :

Signature of Supplier with seal and Date

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PRICE BID, PART - B FOR ENQUIRY NO. E1810015

Supplier Name & Address:

.....

Currency of Quotation (Applicable for Foreign bidders only):

Enquiry item no.	Quoted rate in figure (per number basis in INR / Foreign Currency)	Quoted rate in words (per number basis in INR / Foreign Currency)
Enq. # 5		

- Note:-**
1. By default, indigenous bidders' quotation will be in Indian Rupees (INR) and foreign bidders' will be in the currency quoted as above by them.
 2. The price bid submitted in any other fashion or by adding any condition (e.g. minimum order quantity, rates applicable for specified quantity, discount for quantity, rate based on slabs, rate based on terms of payment etc.), offer shall be straight way REJECTED even if, offer has been found technically & commercial acceptable before opening of price bid.

Signature of Supplier :

Name :

Designation :

Seal :

Signature of Supplier with seal and Date

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Enquiry Annexure

(SCHEDULE-V)

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- iv) Vacuum level of degassing chamber not more than 0.15 torr/0.2 mbar at rated flow and at final stage. Machine shall have minimum of two degassing chambers and these should have sufficient surface areas to achieve the final parameters.
- v) Filter shall be capable of removing particle size more than 0.5 micron in the filtered oil.
- vi) Processing temperature shall be automatically controlled and have an adjustable range from 40°C to 80°C.

The above oil treatment plant (Filtration unit) shall be arranged by the bidder at his own cost.

8.3.6. Transportation of Oil

The insulating oil for the Transformer shall be delivered at site generally not before 90 days from the date of commissioning, with prior information to the Employer, in view of risk involved in bulk storage, pilferage and fire hazard. In case this oil is not filled in Transformer due to delay in commissioning, same oil shall be used only after testing and ensuring that oil parameters are well within the specified limits.

Insulating oil shall be delivered to the site in returnable oil drums / flexi bag / tanker. The oil drums / flexi bag / tanker shall be taken back without any extra cost to Employer within generally 45 days after utilisation of oil but in any case before contract closing. However, the spare oil shall be delivered in non-returnable drums.

9. Spare Transformer Units Connection Arrangement

Detail procedure for storage of spare transformer unit with and without isolator switching arrangement is enclosed at **Annexure-Q**.

10. Bushings

- 10.1. Bushings shall be robust and designed for adequate cantilever strength to meet the requirement of seismic condition, substation layout and movement along with the spare Transformer with bushing erected and provided with proper support from one foundation to another foundation within the substation area. The electrical and mechanical characteristics of bushings shall be in accordance with IEC: 60137/DIN 42530. All details of the bushing shall be submitted for approval and design review.
- 10.2. Bushing for voltage of 52 kV and above shall be RIP bushing with composite polymer insulator. 36 kV and below voltage class bushing shall be solid porcelain or oil communicating type.
- 10.3. RIP type bushing shall be provided with tap for capacitance and tan delta test. Test taps relying on pressure contacts against the outer earth layer of the bushing is not acceptable.
- 10.4. Where current transformers are specified, the bushings shall be removable without disturbing the current transformers.
- 10.5. Bushings of identical rating shall be interchangeable to optimise the requirement of spares. Mounting dimensions of bushing shall be as per drawing mentioned at **Annexure - D**.

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- 10.6. Porcelain used in bushing manufacture shall be homogenous, free from lamination, cavities and other flaws or imperfections that might affect the mechanical or dielectric quality and shall be thoroughly vitrified, tough and impervious to moisture.
- 10.7. Polymer / composite insulator shall be seamless sheath of a silicone rubber compound. The housing & weather sheds should have silicon content of minimum 30% by weight. It should protect the bushing against environmental influences, external pollution and humidity. The interface between the housing and the core must be uniform and without voids. The strength of the bond shall be greater than the tearing strength of the polymer. The manufacturer shall follow non-destructive technique (N.D.T.) to check the quality of jointing of the housing interface with the core. The technique being followed with detailed procedure and sampling shall be finalized during finalization of MQP.
- The weather sheds of the insulators shall be of alternate shed profile as per IEC 60815-3. The weather sheds shall be vulcanized to the sheath (extrusion process) or moulded as part of the sheath (injection moulding process) and free from imperfections. The vulcanization for extrusion process shall be at high temperature and for injection moulding shall be at high temperature & high pressure. Any seams / burrs protruding axially along the insulator, resulting from the injection moulding process shall be removed completely without causing any damage to the housing. The track resistance of housing and shed material shall be class 1A4.5 according to IEC60587. The strength of the weather shed to sheath interface shall be greater than the tearing strength of the polymer. The composite insulator shall be capable of high pressure washing.
- End fittings shall be free from cracks, seams, shrinks, air holes and rough edges. End fittings should be effectively, sealed to prevent moisture ingress, effectiveness of sealing system must be supported by test documents. All surfaces of the metal parts shall be perfectly smooth with the projecting points or irregularities which may cause corona. All load bearing surfaces shall be smooth and uniform so as to distribute the loading stresses uniformly.
- The hollow silicone composite insulators shall comply with the requirements of the IEC publications IEC 61462 and the relevant parts of IEC 62217. The design of the composite insulators shall be tested and verified according to IEC 61462 (Type & Routine test)
- 10.8. Clamps and fittings shall be of hot dip galvanised/stainless steel.
- 10.9. Bushing turrets shall be provided with vent pipes, to route any gas collection through the Buchholz relay.
- 10.10. No arcing horns shall be provided on the bushings.
- 10.11. RIP Bushing shall be specially packed to avoid any damage during transit and suitable for long storage, with non-returnable packing wooden boxes with hinged type cover. Without any gap between wooden planks. Packing Box opening cover with nails/screws type packing arrangement shall not be acceptable. Bushing oil end portion shall be fitted with metal housing with positive dry air pressure and a suitable pressure monitoring device shall be fitted on the metal housing during storage to avoid direct contact with moisture with epoxy. Alternatively, oil filled metal housing with suitable arrangement for taking care oil expansion due to temperature variations shall also be acceptable. Manufacturer shall submit drawing/ documents of packing for approval

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during detail engineering. Detail method for storage of bushing including accessories shall be brought out in the instruction manual.

- 10.12. The terminal marking and their physical position shall be as per IEC: 60076.
- 10.13. Tan delta measurement at variable frequency (in the range of 20 Hz to 350 Hz) shall be carried out on each condenser type bushing (OIP & RIP) at Transformer manufacturing works as routine test before despatch and the result shall be compared at site during commissioning to verify the healthiness of the bushing.
- 10.14. If the bushing Tan delta goes beyond 0.005 or increase is more than 0.001 within the warrantee period w.r.t. pre-commissioning values, the contractor shall arrange to replace the defective bushing by new one. No temperature correction factor shall be applicable for tan delta.

11. Neutral Formation and Earthing Arrangement

11.1. For 3-Phase Unit

The neutral of the transformer shall be brought out through bushing. The neutral terminal of 3-phase transformer shall be brought to the ground level by a brass/tinned copper grounding bar, supported from the tank by using porcelain insulators. The end of the brass/tinned copper bar shall be brought to the bottom of the tank, at a convenient point, for making bolted connection to two (2) 75 x 12 mm galvanised steel flats connected to Employer's grounding mat.

11.2. For 1-Phase Unit (if specified in BPS)

The neutral of the transformer shall be brought out through bushing. The contractor shall connect the neutrals of 1-phase transformers by overhead connection using an overhead common brass/tinned copper/Aluminum pipe /ACSR conductor grounding bus, supported from the tank and fire walls by using porcelain insulators and wherever flexible jumper needs to be provided, same shall be through twin conductor. All material like Bus post insulator, Aluminum tube, conductor, clamps & connectors, earthing materials, support structure, hardware etc required for neutral formation and connection with neutral CT and earthing of neutral shall be provided by contractor. The neutral formation shall be such that neutral winding of single-phase spare transformer can be disconnected or connected to either of the three phase banks.

12. Delta Formation (applicable for 1-Phase Transformer) : (if specified in BPS)

The tertiary/LV winding terminals of the transformer shall be brought out through bushing. The contractor shall connect Tertiary/LV of 1-phase transformers in DELTA configuration by overhead connection to operate in 3-Phase Bank. The Delta shall be formed by approximate size of 3" IPS Al tube, which shall be insulated with heat shrinkage insulating sleeve or cable of suitable voltage class and adequate thickness and shall be supported by structure mounted bus post insulators at suitable intervals. Jumpers (twin) wherever provided shall also be insulated at site using suitable insulation tape or sleeve atleast 52kV class for 33kV Bus and atleast 36kV class for below 33kV voltage class Bus. The minimum phase to phase horizontal spacing for delta formation shall be 1.5 meter. Suitable cable shall be used for delta formation for below 33kV winding All associated materials like bus post insulators, Aluminum tube,

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	HV		GRADED
	IV		GRADED
	LV		UNIFORM
vii)	Tertiary Connection		DELTA
viii)	Tan delta of winding	%	<0.5%
4.14	Vector Group (3 -ph) (unless specified differently elsewhere)		YNa0d11
4.15	Tap Changer		OLTC
i)	Tap Range & No. of steps		-5% to +10% of HV variation in the step of 1.25%, 12 Steps
ii)	Location of Tap changer		On the 132 kV side of the series winding
iii)	Design		Constant flux voltage variation type as per cl. 6.2 of IEC 60076 part-1
iv)	Tap control		Full capacity - on load tap changer suitable for group independent, remote /local electrical and local manual operation and bi-directional power flow
4.16	Bushings		
i)	Rated voltage		
	HV	kV	245
	IV	kV	145
	LV	kV	52
	Neutral	kV	36
ii)	Rated current (Min.)		
	HV	A	800
	IV	A	1250
	LV	A	800
	Neutral	A	1000
iii)	Lightning Impulse withstand Voltage		
	HV	kVp	1050
	IV	kVp	650
	LV	kVp	250
	Neutral	kVp	170
iv)	Switching Impulse withstand Voltage		
	HV	kVp	850
v)	One Minute Power Frequency withstand Voltage		
	HV	kVrms	505
	IV	kVrms	305
	LV	kVrms	105
	Neutral	kVrms	77
vi)	Minimum total creepage distances		
	HV	mm	6125
	IV	mm	3625
	LV	mm	1300
	Neutral	mm	900
vii)	Tan delta of bushing		
	HV	%	<0.4%

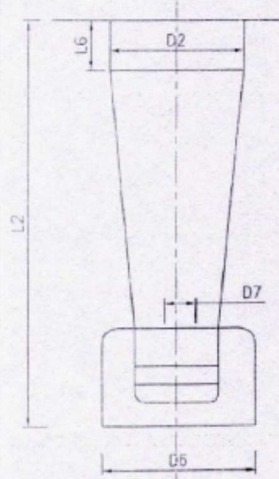
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	IV	%	<0.4%
	LV	%	<0.4%
	Neutral	%	-
viii)	Max Partial discharge level at U_m		
	HV	pC	10
	IV	pC	10
	LV	pC	10
4.17	Max Partial discharge level at $1.5U_m/\sqrt{3}$	pC	100
4.18	Max Noise level at rated voltage and at principal tap at no load and all cooling active	dB	75

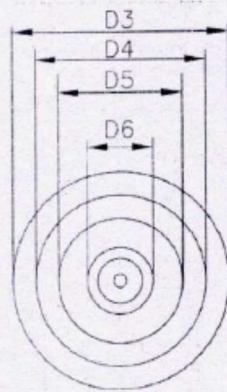
Notes:

1. For parallel operation with existing transformer, the impedance, OLTC connection & range and the winding configuration (if necessary) is to be matched.
2. No external or internal Transformers / Reactors are to be used to achieve the specified HV/IV, HV/LV and IV/LV impedances.
3. Tan delta of Winding & Bushing shall be measured at ambient temperature. No temperature correction factor shall be applied.
4. The criteria for Transformer losses shall be "**Copper Loss (Load Loss) > Iron Loss (No Load Loss) > Cooler Loss (Auxiliary Loss)**".

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VOLTAGE RATING KV	420	245	145	72.5	52		
BIL (kV)	1425	1050	650	325	250		
CREEPAGE (MM) (Min.)	10500	6125	3625	1810	1300		
CURRENT RATING (A) (Min.)	800	1250	1250	2000	800	800	3150
L2 ±5 (FOR DIFF. VALUES OF L6)	1640	1130	1230	800/800	695	475	
L6 (MIN.)	400	300	100/300	300	100	100	
D2 (Max.)	350	270	165	115	165	165	
D3 ±2	720	450	335	225	335	335	
D4 ±1	660	400	290	185	290	290	
D5xN	24x12	20x12	15x12	15x6	15x12	15x12	
D6 (MAX)	350	270	165	115	115	115	
D7 (Min)	60	48	-	38	-	-	



NOTE:

1. ALL DIMENSIONS ARE IN MM
 2. NO POSITIVE TOL. WHERE MAX. DIMENSION SPECIFIED AND NO NEG. TOL. WHERE MIN. DIMENSION IS SPECIFIED
- # APPLICABLE FOR SHUNT REACTOR

PREPARED BY	CHECKED BY	APPROVED BY	TITLE	DRG NO
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	STD. DIMN. FOR RIP CONDENSER BUSHINGS (LOWER PORTION)	000-T-E-A-001-R02

ANNEXURE TO PI 140610150 Page 1 of 6

- iv) Vacuum level of degassing chamber not more than 0.15 torr/0.2 mbar at rated flow and at final stage. Machine shall have minimum of two degassing chambers and these should have sufficient surface areas to achieve the final parameters.
- v) Filter shall be capable of removing particle size more than 0.5 micron in the filtered oil.
- vi) Processing temperature shall be automatically controlled and have an adjustable range from 40°C to 80°C.

The above oil treatment plant (Filtration unit) shall be arranged by the bidder at his own cost.

8.3.6. Transportation of Oil

The insulating oil for the Transformer shall be delivered at site generally not before 90 days from the date of commissioning with prior information to the Employer, in view of risk involved in bulk storage, pilferage and fire hazard. In case this oil is not filled in Transformer due to delay in commissioning, same oil shall be used only after testing and ensuring that oil parameters are well within the specified limits.

Insulating oil shall be delivered to the site in returnable oil drums / flexi bag / tanker. The oil drums / flexi bag / tanker shall be taken back without any extra cost to Employer within generally 45 days after utilisation of oil but in any case before contract closing. However, the spare oil shall be delivered in non-returnable drums.

9. Spare Transformer Units Connection Arrangement

Detail procedure for storage of spare transformer unit with and without isolator switching arrangement is enclosed at Annexure-Q.

10. Bushings

- 10.1. Bushings shall be robust and designed for adequate cantilever strength to meet the requirement of seismic condition, substation layout and movement along with the spare Transformer with bushing erected and provided with proper support from one foundation to another foundation within the substation area. The electrical and mechanical characteristics of bushings shall be in accordance with IEC: 60137/DIN 42530. All details of the bushing shall be submitted for approval and design review.
- 10.2. Bushing for voltage of 52 kV and above shall be RIP bushing with composite polymer insulator. 36 kV and below voltage class bushing shall be solid porcelain or oil communicating type.
- 10.3. RIP type bushing shall be provided with tap for capacitance and tan delta test. Test taps relying on pressure contacts against the outer earth layer of the bushing is not acceptable.
- 10.4. Where current transformers are specified, the bushings shall be removable without disturbing the current transformers.
- 10.5. Bushings of identical rating shall be interchangeable to optimise the requirement of spares. Mounting dimensions of bushing shall be as per drawing mentioned at Annexure - D.

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10.6. Porcelain used in bushing manufacture shall be homogenous, free from lamination, cavities and other flaws or imperfections that might affect the mechanical or dielectric quality and shall be thoroughly vitrified, tough and impervious to moisture.

10.7. Polymer / composite insulator shall be seamless sheath of a silicone rubber compound. The housing & weather sheds should have silicon content of minimum 30% by weight. It should protect the bushing against environmental influences, external pollution and humidity. The interface between the housing and the core must be uniform and without voids. The strength of the bond shall be greater than the tearing strength of the polymer. The manufacturer shall follow non-destructive technique (N.D.T.) to check the quality of jointing of the housing interface with the core. The technique being followed with detailed procedure and sampling shall be finalized during finalization of MQP.

The weather sheds of the insulators shall be of alternate shed profile as per IEC 60815-3. The weather sheds shall be vulcanized to the sheath (extrusion process) or moulded as part of the sheath (injection moulding process) and free from imperfections. The vulcanization for extrusion process shall be at high temperature and for injection moulding shall be at high temperature & high pressure. Any seams / burrs protruding axially along the insulator, resulting from the injection moulding process shall be removed completely without causing any damage to the housing. The track resistance of housing and shed material shall be class 1A4.5 according to IEC60587. The strength of the weather shed to sheath interface shall be greater than the tearing strength of the polymer. The composite insulator shall be capable of high pressure washing.

End fittings shall be free from cracks, seams, shrinks, air holes and rough edges. End fittings should be effectively, sealed to prevent moisture ingress, effectiveness of sealing system must be supported by test documents. All surfaces of the metal parts shall be perfectly smooth with the projecting points or irregularities which may cause corona. All load bearing surfaces shall be smooth and uniform so as to distribute the loading stresses uniformly.

The hollow silicone composite insulators shall comply with the requirements of the IEC publications IEC 61462 and the relevant parts of IEC 62217. The design of the composite insulators shall be tested and verified according to IEC 61462 (Type & Routine test)

10.8. Clamps and fittings shall be of hot dip galvanised/stainless steel.

10.9. Bushing turrets shall be provided with vent pipes, to route any gas collection through the Buchholz relay.

10.10. No arcing horns shall be provided on the bushings.

10.11. RIP Bushing shall be specially packed to avoid any damage during transit and suitable for long storage, with non-returnable packing wooden boxes with hinged type cover. Without any gap between wooden planks. Packing Box opening cover with nails/screws type packing arrangement shall not be acceptable. Bushing oil end portion shall be fitted with metal housing with positive dry air pressure and a suitable pressure monitoring device shall be fitted on the metal housing during storage to avoid direct contact with moisture with epoxy. Alternatively, oil filled metal housing with suitable arrangement for taking care oil expansion due to temperature variations shall also be acceptable. Manufacturer shall submit drawing/ documents of packing for approval

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during detail engineering. Detail method for storage of bushing including accessories shall be brought out in the instruction manual.

- 10.12. The terminal marking and their physical position shall be as per IEC: 60076.
- 10.13. Tan delta measurement at variable frequency (in the range of 20 Hz to 350 Hz) shall be carried out on each condenser type bushing (OIP & RIP) at Transformer manufacturing works as routine test before despatch and the result shall be compared at site during commissioning to verify the healthiness of the bushing.
- 10.14. If the bushing Tan delta goes beyond 0.005 or increase is more than 0.001 within the warranty period w.r.t. pre-commissioning values, the contractor shall arrange to replace the defective bushing by new one. No temperature correction factor shall be applicable for tan delta.

11. Neutral Formation and Earthing Arrangement

11.1. For 3-Phase Unit

The neutral of the transformer shall be brought out through bushing. The neutral terminal of 3-phase transformer shall be brought to the ground level by a brass/tinned copper grounding bar, supported from the tank by using porcelain insulators. The end of the brass/tinned copper bar shall be brought to the bottom of the tank, at a convenient point, for making bolted connection to two (2) 75 x 12 mm galvanised steel flats connected to Employer's grounding mat.

11.2. For 1-Phase Unit (if specified in BPS)

The neutral of the transformer shall be brought out through bushing. The contractor shall connect the neutrals of 1-phase transformers by overhead connection using an overhead common brass/tinned copper/Aluminium pipe /ACSR conductor grounding bus, supported from the tank and fire walls by using porcelain insulators and wherever flexible jumper needs to be provided, same shall be through twin conductor. All material like Bus post insulator, Aluminium tube, conductor, clamps & connectors, earthing materials, support structure, hardware etc required for neutral formation and connection with neutral CT and earthing of neutral shall be provided by contractor. The neutral formation shall be such that neutral winding of single-phase spare transformer can be disconnected or connected to either of the three phase banks.

12. Delta Formation (applicable for 1-Phase Transformer); (if specified in BPS)

The tertiary/LV winding terminals of the transformer shall be brought out through bushing. The contractor shall connect Tertiary/LV of 1-phase transformers in DELTA configuration by overhead connection to operate in 3-Phase Bank. The Delta shall be formed by approximate size of 3" IPS Al tube, which shall be insulated with heat shrinkage insulating sleeve or cable of suitable voltage class and adequate thickness and shall be supported by structure mounted bus post insulators at suitable intervals. Jumpers (twin) wherever provided shall also be insulated at site using suitable insulation tape or sleeve atleast 52kV class for 33kV Bus and atleast 36kV class for below 33kV voltage class Bus. The minimum phase to phase horizontal spacing for delta formation shall be 1.5 meter. Suitable cable shall be used for delta formation for below 33kV winding All associated materials like bus post insulators, Aluminium tube,

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	HV		GRADED
	IV		GRADED
	LV		UNIFORM
vii)	Tertiary Connection		DELTA
viii)	Tan delta of winding	%	<0.5%
4.14	Vector Group (3-ph) (unless specified differently elsewhere)		YNa0d11
4.15	Tap Changer		OLTC
i)	Tap Range & No. of steps		-5% to +10% of HV variation in the step of 1.25%, 12 Steps
ii)	Location of Tap changer		On the 132 kV side of the series winding
iii)	Design		Constant flux voltage variation type as per cl. 6.2 of IEC 60076 part-I
iv)	Tap control		Full capacity - on load tap changer suitable for group independent, remote /local electrical and local manual operation and bi-directional power flow

4.16	Bushings		
i)	Rated voltage		
	HV	kV	245
	IV	kV	145
	LV	kV	52
	Neutral	kV	36
ii)	Rated current (Min.)		
	HV	A	800
	IV	A	1250
	LV	A	800
	Neutral	A	1000
iii)	Lightning Impulse withstand Voltage		
	HV	kVp	1050
	IV	kVp	650
	LV	kVp	250
	Neutral	kVp	170
iv)	Switching Impulse withstand Voltage		
	HV	kVp	850
v)	One Minute Power Frequency withstand Voltage		
	HV	kVrms	505
	IV	kVrms	305
	LV	kVrms	105
	Neutral	kVrms	77
vi)	Minimum total creepage distances		
	HV	mm	6125
	IV	mm	3625
	LV	mm	1300
	Neutral	mm	900
vii)	Tan delta of bushing		
	HV	%	<0.4%

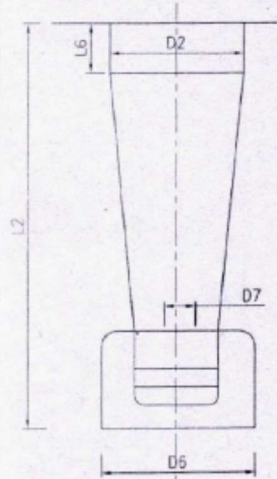
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	IV	%	<0.4%
	LV	%	<0.4%
	Neutral	%	-
viii)	Max Partial discharge level at U_m		
	HV	pC	10
	IV	pC	10
	LV	pC	10
4.17	Max Partial discharge level at $1.5U_m/\sqrt{3}$	pC	100
4.18	Max Noise level at rated voltage and at principal tap at no load and all cooling active	dB	75

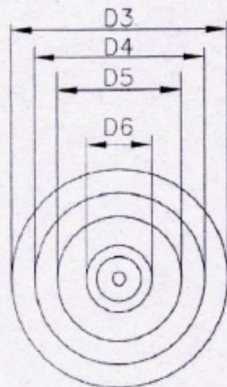
Notes:

1. For parallel operation with existing transformer, the impedance, OLTC connection & range and the winding configuration (if necessary) is to be matched.
2. No external or internal Transformers / Reactors are to be used to achieve the specified HV/IV, HV/LV and IV/LV impedances.
3. Tan delta of Winding & Bushing shall be measured at ambient temperature. No temperature correction factor shall be applied.
4. The criteria for Transformer losses shall be "Copper Loss (Load Loss) > Iron Loss (No Load Loss) > Cooler Loss (Auxiliary Loss)".

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VOLTAGE RATING KV	420	245	145	72.5	52
BIL (kV)	1425	1050	650	325	250
CREEPAGE (MM) (Min.)	10500	6125	3625	1810	1300
CURRENT RATING (A) (Min.)	800	1250	2250	800	3150
L2±5 (FOR DIFF. VALUES OF L6)	1640	1130	1230	600	800
L6 (MIN.)	400	300	100	300	100
D2 (Max.)	350	270	165	115	165
D3±2	720	450	335	225	335
D4±1	660	400	290	185	290
D5xN	24x12	20x12	15x12	15x6	15x12
D6 (MAX)	350	270	165	115	115
D7 (Min)	60	48	-	38	-



NOTE:

1. ALL DIMENSIONS ARE IN MM
2. NO POSITIVE TOL. WHERE MAX. DIMENSION SPECIFIED AND NO NEG. TOL. WHERE MIN. DIMENSION IS SPECIFIED

APPLICABLE FOR SHUNT REACTOR

PREPARED BY	CHECKED BY	APPROVED BY	TITLE	DRG NO
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	STD. DIMN. FOR RIP CONDENSER BUSHINGS (LOWER PORTION)	000-T-E-A-001-R02

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- iv) Vacuum level of degassing chamber not more than 0.15 torr/0.2 mbar at rated flow and at final stage. Machine shall have minimum of two degassing chambers and these should have sufficient surface areas to achieve the final parameters.
- v) Filter shall be capable of removing particle size more than 0.5 micron in the filtered oil.
- vi) Processing temperature shall be automatically controlled and have an adjustable range from 40°C to 80°C.

The above oil treatment plant (Filtration unit) shall be arranged by the bidder at his own cost.

8.3.6. Transportation of Oil

The insulating oil for the Transformer shall be delivered at site generally not before 90 days from the date of commissioning, with prior information to the Employer, in view of risk involved in bulk storage, pilferage and fire hazard. In case this oil is not filled in Transformer due to delay in commissioning, same oil shall be used only after testing and ensuring that oil parameters are well within the specified limits.

Insulating oil shall be delivered to the site in returnable oil drums / flexi bag / tanker. The oil drums / flexi bag / tanker shall be taken back without any extra cost to Employer within generally 45 days after utilisation of oil but in any case before contract closing. However, the spare oil shall be delivered in non-returnable drums.

9. Spare Transformer Units Connection Arrangement

Detail procedure for storage of spare transformer unit with and without isolator switching arrangement is enclosed at Annexure-Q.

10. Bushings

- 10.1. Bushings shall be robust and designed for adequate cantilever strength to meet the requirement of seismic condition, substation layout and movement along with the spare Transformer with bushing erected and provided with proper support from one foundation to another foundation within the substation area. The electrical and mechanical characteristics of bushings shall be in accordance with IEC: 60137/DIN 42530. All details of the bushing shall be submitted for approval and design review.
- 10.2. Bushing for voltage of 52 kV and above shall be RIP bushing with composite polymer insulator. 36 kV and below voltage class bushing shall be solid porcelain or oil communicating type.
- 10.3. RIP type bushing shall be provided with tap for capacitance and tan delta test. Test taps relying on pressure contacts against the outer earth layer of the bushing is not acceptable.
- 10.4. Where current transformers are specified, the bushings shall be removable without disturbing the current transformers.
- 10.5. Bushings of identical rating shall be interchangeable to optimise the requirement of spares. Mounting dimensions of bushing shall be as per drawing mentioned at Annexure - D.

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10.6. Porcelain used in bushing manufacture shall be homogenous, free from lamination, cavities and other flaws or imperfections that might affect the mechanical or dielectric quality and shall be thoroughly vitrified, tough and impervious to moisture.

10.7. Polymer / composite insulator shall be seamless sheath of a silicone rubber compound. The housing & weather sheds should have silicon content of minimum 30% by weight. It should protect the bushing against environmental influences, external pollution and humidity. The interface between the housing and the core must be uniform and without voids. The strength of the bond shall be greater than the tearing strength of the polymer. The manufacturer shall follow non-destructive technique (N.D.T.) to check the quality of jointing of the housing interface with the core. The technique being followed with detailed procedure and sampling shall be finalized during finalization of MQP.

The weather sheds of the insulators shall be of alternate shed profile as per IEC 60815-3. The weather sheds shall be vulcanized to the sheath (extrusion process) or moulded as part of the sheath (injection moulding process) and free from imperfections. The vulcanization for extrusion process shall be at high temperature and for injection moulding shall be at high temperature & high pressure. Any seams / burrs protruding axially along the insulator, resulting from the injection moulding process shall be removed completely without causing any damage to the housing. The track resistance of housing and shed material shall be class 1A4.5 according to IEC60587. The strength of the weather shed to sheath interface shall be greater than the tearing strength of the polymer. The composite insulator shall be capable of high pressure washing.

End fittings shall be free from cracks, seams, shrinks, air holes and rough edges. End fittings should be effectively, sealed to prevent moisture ingress, effectiveness of sealing system must be supported by test documents. All surfaces of the metal parts shall be perfectly smooth with the projecting points or irregularities which may cause corona. All load bearing surfaces shall be smooth and uniform so as to distribute the loading stresses uniformly.

The hollow silicone composite insulators shall comply with the requirements of the IEC publications IEC 61462 and the relevant parts of IEC 62217. The design of the composite insulators shall be tested and verified according to IEC 61462 (Type & Routine test)

10.8. Clamps and fittings shall be of hot dip galvanised/stainless steel.

10.9. Bushing turrets shall be provided with vent pipes, to route any gas collection through the Buchholz relay.

10.10. No arcing horns shall be provided on the bushings.

10.11. RIP Bushing shall be specially packed to avoid any damage during transit and suitable for long storage, with non-returnable packing wooden boxes with hinged type cover. Without any gap between wooden planks. Packing Box opening cover with nails/screws type packing arrangement shall not be acceptable. Bushing oil end portion shall be fitted with metal housing with positive dry air pressure and a suitable pressure monitoring device shall be fitted on the metal housing during storage to avoid direct contact with moisture with epoxy. Alternatively, oil filled metal housing with suitable arrangement for taking care oil expansion due to temperature variations shall also be acceptable. Manufacturer shall submit drawing/ documents of packing for approval

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during detail engineering. Detail method for storage of bushing including accessories shall be brought out in the instruction manual.

- 10.12. The terminal marking and their physical position shall be as per IEC: 60076.
- 10.13. Tan delta measurement at variable frequency (in the range of 20 Hz to 350 Hz) shall be carried out on each condenser type bushing (OIP & RIP) at Transformer manufacturing works as routine test before despatch and the result shall be compared at site during commissioning to verify the healthiness of the bushing.
- 10.14. If the bushing Tan delta goes beyond 0.005 or increase is more than 0.001 within the warranty period w.r.t. pre-commissioning values, the contractor shall arrange to replace the defective bushing by new one. No temperature correction factor shall be applicable for tan delta.

11. Neutral Formation and Earthing Arrangement

11.1. For 3-Phase Unit

The neutral of the transformer shall be brought out through bushing. The neutral terminal of 3-phase transformer shall be brought to the ground level by a brass/tinned copper grounding bar, supported from the tank by using porcelain insulators. The end of the brass/tinned copper bar shall be brought to the bottom of the tank, at a convenient point, for making bolted connection to two (2) 75 x 12 mm galvanised steel flats connected to Employer's grounding mat.

11.2. For 1-Phase Unit (if specified in BPS)

The neutral of the transformer shall be brought out through bushing. The contractor shall connect the neutrals of 1-phase transformers by overhead connection using an overhead common brass/tinned copper/Aluminum pipe /ACSR conductor grounding bus, supported from the tank and fire walls by using porcelain insulators and wherever flexible jumper needs to be provided, same shall be through twin conductor. All material like Bus post insulator, Aluminium tube, conductor, clamps & connectors, earthing materials, support structure, hardware etc required for neutral formation and connection with neutral CT and earthing of neutral shall be provided by contractor. The neutral formation shall be such that neutral winding of single-phase spare transformer can be disconnected or connected to either of the three phase banks.

12. Delta Formation (applicable for 1-Phase Transformer) : (if specified in BPS)

The tertiary/LV winding terminals of the transformer shall be brought out through bushing. The contractor shall connect Tertiary/LV of 1-phase transformers in DELTA configuration by overhead connection to operate in 3-Phase Bank. The Delta shall be formed by approximate size of 3" IPS Al tube, which shall be insulated with heat shrinkage insulating sleeve or cable of suitable voltage class and adequate thickness and shall be supported by structure mounted bus post insulators at suitable intervals. Jumpers (twin) wherever provided shall also be insulated at site using suitable insulation tape or sleeve atleast 52kV class for 33kV Bus and atleast 36kV class for below 33kV voltage class Bus. The minimum phase to phase horizontal spacing for delta formation shall be 1.5 meter. Suitable cable shall be used for delta formation for below 33kV winding All associated materials like bus post insulators, Aluminium tube,

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	HV		GRADED
	IV		GRADED
	LV		UNIFORM
vii)	Tertiary Connection		DELTA
viii)	Tan delta of windings	%	<0.5%
4.14	Vector Group (3-ph) (unless specified differently elsewhere)		YNa0d11
4.15	Tap Changer		OLTC
i)	Tap Range & No. of steps		-5% to +10% of HV variation in the step of 1.25%, 12 Steps
ii)	Location of Tap changer		On the 132 kV side of the series winding
iii)	Design		Constant flux voltage variation type as per cl. 6.2 of IEC 60076 part-I
iv)	Tap control		Full capacity - on load tap changer suitable for group independent, remote /local electrical and local manual operation and bi-directional power flow.
4.16	Bushings		
i)	Rated voltage		
	HV	kV	245
	IV	kV	145
	LV	kV	52
	Neutral	kV	36
ii)	Rated current (Min.)		
	HV	A	800
	IV	A	1250
	LV	A	800
	Neutral	A	1000
iii)	Lightning Impulse withstand Voltage		
	HV	kVp	1050
	IV	kVp	650
	LV	kVp	250
	Neutral	kVp	170
iv)	Switching Impulse withstand Voltage		
	HV	kVp	850
v)	One Minute Power Frequency withstand Voltage		
	HV	kVrms	505
	IV	kVrms	305
	LV	kVrms	105
	Neutral	kVrms	77
vi)	Minimum total creepage distances		
	HV	mm	6125
	IV	mm	3625
	LV	mm	1300
	Neutral	mm	900
vii)	Tan delta of bushing		
	HV	%	<0.4%

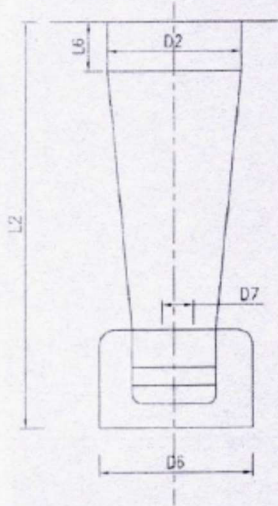
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	IV	%	<0.4%
	LV	%	<0.4%
	Neutral	%	-
viii)	Max Partial discharge level at U_m		
	HV	pC	10
	IV	pC	10
	LV	pC	10
4.17	Max Partial discharge level at $1.5U_m/\sqrt{3}$	pC	100
4.18	Max Noise level at rated voltage and at principal tap at no load and all cooling active	dB	75

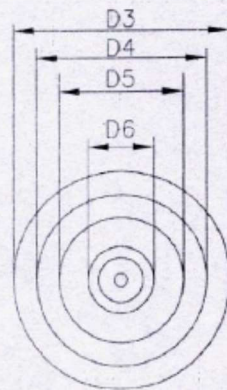
Notes:

1. For parallel operation with existing transformer, the impedance, OLTC connection & range and the winding configuration (if necessary) is to be matched.
2. No external or internal Transformers / Reactors are to be used to achieve the specified HV/IV, HV/LV and IV/LV impedances.
3. Tan delta of Winding & Bushing shall be measured at ambient temperature. No temperature correction factor shall be applied.
4. The criteria for Transformer losses shall be "Copper Loss (Load Loss) > Iron Loss (No Load Loss) > Cooler Loss (Auxiliary Loss)".

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VOLTAGE RATING KV	420	245	145	72.5	52
BIL. (KV)	1425	1050	650	325	250
CREEPAGE (MM) (Min.)	10500	6125	3625	1810	1300
CURRENT RATING (A) (Min.)	800/1250	1250/2000	800	800	3150
L2 ± 5 (FOR DIFF. VALUES OF L6)	1640	1300/1230	600/800	695	475
L6 (MIN.)	400	300	100/300	300	100
D2 (Max.)	350	270	165	115	165
D3 ± 2	720	450	335	225	335
D4 ± 1	660	400	290	185	290
D5xN	24x12	20x12	15x12	15x6	15x12
D6 (MAX)	350	270	165	115	115
D7 (Min)	60	48	38	—	—



NOTE:

1. ALL DIMENSIONS ARE IN MM
 2. NO POSITIVE TOL. WHERE MAX. DIMENSION SPECIFIED AND NO NEG. TOL. WHERE MIN. DIMENSION IS SPECIFIED
- # APPLICABLE FOR SHUNT REACTOR

PREPARED BY 	CHECKED BY 	APPROVED BY 	TITLE STD. DIMN. FOR RIP CONDENSER BUSHINGS (LOWER PORTION)	DRG NO 000-T-E-A-001-R02
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(SCHEDULE-VI)

BUSINESS RULES FOR REVERSE AUCTION

This has reference to tender no **{E1810015 dateXXXX}**. BHEL shall finalise the Rates for the supply of *{RIP Bushings}* 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. *{E1810015}* dated *{XXXX}*, (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. Price bids of all techno-commercially qualified bidders shall be opened.
- ii. **Reverse Auction:** The 'bid decrement' will be decided by BHEL.
- iii. The lowest bidder in sealed envelope price 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. However, no bidder shall be allowed to lower its bid below the current L1 by more than 5 decrements at one go.
- v. After the completion of the reverse auction, the Closing Price shall be available for further processing.
- vi. Wherever the evaluation is done on total cost basis, after Reverse Auction, prices of individual line items shall be reduced on pro-rata basis.

2. Schedule for reverse auction: The Reverse Auction is tentatively scheduled on *{shall be intimated later}*: *{start time}:14:00* *{Close Time:15:00}* }.

- 3. Auction extension time:** If a bidder places a bid in the last {05} minutes of closing of the Reverse Auction and if that bid gets accepted, then the auction's duration shall get extended automatically for another {05} 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 {05} 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 {05} minutes. In case, there is no bid in the last {05} 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 Reverse Auction.

- 4. Bid price:** The Bidder has to quote the {FOR, BHEL Jhansi} Price inclusive of Packing & Forwarding charges, all the routine & type tests as per tender scope, taxes, duties, freight and insurance as specified in tender document. 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 {120 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 Reverse Auction will be considered as the bidder's final offer to execute the work.
8. Unique user IDs shall be used by bidders during bidding process. 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 separately intimated to respective 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 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. 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.

In order to ward-off contingent situation of connectivity failure 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 safe guard 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, quoted during the 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).
17. Bidders' bid will be taken as an offer to execute the work/ supplies the item as per enquiry no. {E1810015} dt. {XXXX}. 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).
18. Bidders shall be able to view the following on their screen along with the necessary fields during 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.



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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), shall be initiated by BHEL.



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Process Compliance Form

(The bidders are required to print this on their company's letterhead and sign, stamp before RA)

To

- M/s. {Service provider}
- Postal address}

Sub: Agreement to the Process related Terms and Conditions

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ document for {Items} against BHEL enquiry/ RFQ no.{E1810015} dt. {XXXX} This letter is to confirm that:

- 1) The undersigned is authorized official/ representative of the company to participate in RA and to sign the related documents.
- 2) We have studied the Reverse Auction guidelines (as available on www.bhel.com), and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We also confirm that, in case we become L1 bidder, we will FAX/ email the price confirmation & break up of our quoted price as per Annexure - VI within **two** working days (of BHEL) after completion of RA event, besides sending the same by registered post/ courier both to M/s. BHEL and M/s. {Service provider.}

We, hereby confirm that we will honor the Bids placed by us during the auction process.

With regards

Signature with company seal

Name –

Company / Organization

Designation within Company / Organization

Address of Company / Organization

- **Sign this document and FAX/ email it to M/s {Service provider} at {.....} prior to start of the Event.**

Signature of Supplier with seal and Date

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Details of item (s) for Reverse Auction

Procurement of RIP Bushings against Tender Enquiry No. E1810015 dated XXXXXXXX

ENQUIRY ITEM	DESCRIPTION	QUANTITY	UOM
1&3	245 KV 1250 AMP 300CT LENGTH RIP H.V. BUSHING AS PER ATTACHED ANNEXURE (BUSHING SUITABLE FOR FAULT CURENT OF 50 KA)	24	Nos
2&4	145 KV 1250 AMP 300CT LENGTH RIP I.V. BUSHING AS PER ATTACHED ANNEXURE. (BUSHING SUITABLE FOR FAULT CURRENT OF 40 KA)	24	Nos
5	52KV,800AMPS 300CT LENGHT RIP T.V. BUSHING AS PER ATTACHED ANNEXURE (BUSHING SUITABLE FOR FAULT CURRENT OF 25 KA)	18	Nos

The offers of all the bidders are technically & commercially frozen as submitted by the bidders and clarified in subsequent correspondence, if any, with the bidders.



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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

{Unit

Address-}

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. {E1810015..} dt. {XXXXXX}**

Total price of the items covered under above cited enquiries is inclusive of {Packing & forwarding, GST, E.D., C.S.T., freight and insurance charges up to {BHEL} District, {Jhansi} State and Type Test Charges etc., (exclusive of service tax), 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 {120 in nos. & in words One twenty days} days.

The price break-up is as given below.

Total - Rs. in value & in words _____

Yours sincerely,

For _____

Name:

Company:

Date:

Seal:

Signature of Supplier with seal and Date

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BIDDERS SHARING LAND BOUNDARY WITH INDIA

**SOURCING STRATEGY & POLICY
CORPORATE OPERATIONS MANAGEMENT
BHEL – NEW DELHI**

AA:SSP:PPP-MII
Dated: 25.03.2021

(Circular No. 49 of 2020-21)

- Sub:** (a) Clarifications provided for restrictions placed under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 - Dept. of Expenditure OM No.18/37/2020-PPD dated 08.02.2021 and OM No. F.12/1/2021-PPD (Pt.) dated 02.03.2021
- (b) Relaxation on Global Tender Enquiry (GTE) under Rule 161(iv) of the General Financial Rules (GFRs), 2017 - Dept. of Expenditure OM No.F.12/17/2019-PPD dated 29.10.2020 and OM No. F.4/1/2021-PPD dated 12.03.2021

Ref: Letter reference F.No.7/(03)/2020-PE-XI dated 23.03.2021 of Department of Heavy Industry

1. Circular no 08 of 2020-21 dated 24.07.2020 and further communications are cited wherein, while referring to Order No. P-45021/2/2017-PP (BE-II) dated 04.06.2020 of Department for Promotion of Industry and Internal Trade (DPIIT), the restrictions under Rule 161(iv) of the General Financial Rules (GFRs), 2017 were communicated which mentioned that all Global tenders (with estimated value above Rs. 5 lakhs and less than Rs. 200 Cr.) shall not be issued unless approved by the Competent Authority.

Circular no 09 of 2020-21 dated 06.08.2020 is cited wherein, while referring to OM no 6/18/2019-PPD dated 23.07.2020 of Dept. of Expenditure (DoE), the restrictions under Rule 144(xi) of the General Financial Rules (GFRs), 2017 were communicated which mentioned that any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority (Registration Committee constituted by DPIIT as per annex I of the Order).

2. Department of Heavy Industry (DHI), vide communication dated 19.11.2020 and reference F.No.7/(03)/2020-PE-XI dated 23.03.2021 has enclosed the subject referred OMs of DoE (copies enclosed), for information, necessary action and compliance. The subject

referred OMs of DoE, while referring to Rule 161(iv) and Rule 144 (xi) of General Financial Rules 2017, provide clarifications and also speak of exemptions in certain cases.

3. In view of the clarifications / exemptions provided in the subject referred OMs of DoE, the following is clarified for compliance by all:

- (a) GTE restrictions communicated vide Circular no 08 of 2020-21 dated 24.07.2020 are not applicable in the following cases:
- (i) Spares from OEM/OES/OPM on single tender basis.
(ref. DoE OM No. F.12/17/2019-PPD dated 29.10.2020)
 - (ii) Wherever contractual commitments/ obligations entered by BHEL before 15.05.2020 have to be fulfilled (i.e. wherever bid had been submitted by BHEL before 15.05.2020 for participating in the tender issued by its Customer).
(ref. DoE OM No. F.4/1/2021-PPD dated 12.03.2021)
 - (iii) Wherever purchases are to be made from collaborators or their recommended suppliers as part of collaboration agreements entered before 15.05.2020 with foreign suppliers and are valid as on 15.05.2020.
(ref. DoE OM No. F.4/1/2021-PPD dated 12.03.2021)
- (b) Following is clarified w.r.t. the restrictions communicated vide Circular no 09 of 2020-21 dated 06.08.2020:
- (i) In Works contracts, including turnkey contracts, for which supply, services/ works have to be made by BHEL to its Customers as part of contractual obligations, the raw materials, components, sub-assemblies etc. can be procured from the vendors from countries which share a land border with India, and in such cases, the bidders from countries sharing land border with India, will not be required to be registered with the Competent Authority i.e. registration committee constituted by DPIIT.

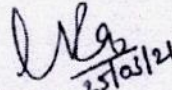
However, in case a bidder has proposed to supply finished goods directly/ indirectly from vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.
(ref. DoE OM no. F.18/37/2020-PPD dated 08.02.2021)

(ii) Wherever BHEL has to procure spare parts and other essential service support like annual maintenance contract (AMC)/ comprehensive maintenance contract (CMC), including consumables for closed systems, from OEMs or their authorized agents, the bidders from countries sharing land border with India, shall be exempted from the requirement of registration with the Competent Authority. (ref. DoE OM no. F.12/1/2021-PPD(Pt.) dated 02.03.2021)

4. The tendering proposals in cases mentioned in para 3 above can be approved by the Competent Authority empowered to invite tenders as per Delegation of Powers in Purchase Policy and Works Policy, as the case may be. While the certification of Head of Commercial Department is required for proposals at 3(a)(ii) and 3(b)(i), the certification of Head of Engineering Department is required for proposals at 3(a)(iii).

5. All other restrictions as mentioned in Circular no. 08 of 2020-21 dated 24.07.2020 and Circular no. 09 of 2020-21 dated 06.08.2020 remain, and approvals have to be sought wherever required. Wherever GTE proposals are sent in future, details should also be filled as per Annexure-B enclosed to the extant GTE format AA:SSP:PPP-MII:F02 R03.

This issues with the approval of the Competent Authority.


(C. Venkat Rao)
GM/ SS&P

Encs.: As above

Distribution:

- All Heads of MM of Units/ Regions

Copy to:

- All Heads of Units/ Regions
- SS&P page on Corporate Office intranet
- Director (IS&P)/(HR)/(E,R&D)/(Fin)/(Power)
- SA to CMD
- <http://intranet.bhel.in>
- for kind information
- for kind information of CMD



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SCHEDULE-VIII

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Sir' Fort, New Delhi - 1 10049 (India) hereinafter referred to as The Principal", which expression unless repugnant to the context or meaning here of 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 forE1810015..... 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.

Signature of Supplier with seal and Date

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Handwritten signature

SCHEDULE-VIII

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.

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R.L.



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SCHEDULE-VIII

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 / Subcontractors

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.

Signature of Supplier with seal and Date

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SCHEDULE-VIII

- 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 note , 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 alter 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.

Signature of Supplier with seal and Date

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SCHEDULE-VIII

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 Contractor

Rahul Kumar
 RAHUL KUMAR
 Sr. Purchasing Officer (MM)
 BHEL, JHANSI

(Signature with Office Seal)

For & On behalf of the Bidder /

(Signature with Office Seal)

Place : _____

Date : _____

Witness 1 : _____

Witness 2 : _____

(Name & Address) : _____

(Name & Address) : _____