
 BHEL Tenders		Government eProcurement System Tender Details	
		Date : 26-Oct-2023 04:55 PM	
 Print			
Basic Details			
Organisation Chain	Bharat Heavy Electricals Limited HEP - Bhopal Transformer Capacitor Bushings 356 - Material MGT - Transf. Cap. and Bushg.		
Tender Reference Number	E7533030		
Tender ID	2023_BHEL_29786_1	Withdrawal Allowed	Yes
Tender Type	Global Tenders	Form of contract	Supply
Tender Category	Goods	No. of Covers	2
General Technical Evaluation Allowed	No	ItemWise Technical Evaluation Allowed	Yes
Payment Mode	Not Applicable	Is Multi Currency Allowed For BOQ	Yes
Is Multi Currency Allowed For Fee	No	Allow Two Stage Bidding	No
Cover Details, No. Of Covers - 2			
Cover No	Cover	Document Type	Description
1	Fee/PreQual/Technical	.pdf	Specifications
		.pdf	Integrity pact
		.pdf	GTC and Reconciliation circular
		.pdf	ANNEXURE TC
2	Finance	.xls	Price bid
Tender Fee Details, [Total Fee in ₹ * - 0.00]		EMD Fee Details	
Tender Fee in ₹	0.00	EMD Amount in ₹	0.00
Fee Payable To	Nil	EMD through BG/ST or EMD Exemption Allowed	No
Fee Payable At	Nil	EMD Fee Type	fixed
Tender Fee Exemption Allowed	No	EMD Percentage	NA
		EMD Payable To	Nil
		EMD Payable At	Nil
Click to view modification history			
Foreign Currency BOQ Details			
S.No	Currency	Conversion rate in ₹	
1	US Dollar	NA	
2	European Euro	NA	
3	Japanese Yen	NA	
Work /Item(s)			
Title	E7533030		
Work Description	420KV, 2000A RIP BUSHING AS PER BHEL SPEC BCE/PS/420/14 REV01		
Pre Qualification Details	Please refer Tender documents.		
Independent External Monitor/Remarks	NA		
Show Tender Value in Public Domain	No		

Tender Value in ₹	3,75,00,000	Product Category	Electrical Work/ Equipment	Sub category	NA
Contract Type	Tender	Bid Validity(Days)	120	Period Of Work(Days)	120
Location	BHEL BHOPAL	Pincode	462021	Pre Bid Meeting Place	NA
Pre Bid Meeting Address	NA	Pre Bid Meeting Date	NA	Bid Opening Place	BHOPAL
Should Allow NDA Tender	No	Allow Preferential Bidder	No		

Critical Dates

Publish Date	26-Oct-2023 05:30 PM	Bid Opening Date	27-Nov-2023 05:00 PM
Document Download / Sale Start Date	26-Oct-2023 05:30 PM	Document Download / Sale End Date	27-Nov-2023 02:00 PM
Clarification Start Date	NA	Clarification End Date	NA
Bid Submission Start Date	27-Oct-2023 09:00 AM	Bid Submission End Date	27-Nov-2023 02:00 PM

Tender Documents

NIT Document	S.No	Document Name	Description	Document Size (in KB)
	1	Tendernotice_1.pdf	NIT copy	78.29
	2	Tendernotice_2.pdf	PQR and specifications	1608.31

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	EnquiryE7533030.pdf	Enquiry E7533030	64.28
	2	Tender Documents	BP200102A.pdf	BHEL GTC	723.99
	3	Tender Documents	ANNEXURETC3AIndianvendor.pdf	ANNEXURE T AND C INDIAN VENDORS	363.05
	4	Tender Documents	ANNEXURETC3Bforeignvendor.pdf	ANNEXURE TC FOR FOREIGN BIDDERS	376.05
	5	Tender Documents	IPsigned.pdf	INTEGRITY PACT	4265.20
	6	Tender Documents	PQRSpec.pdf	PQR AND SPECIFICATIONS	1594.31
	7	Tender Documents	Reconciliationcircular.pdf	RECONCILLATION CIRCULAR	153.18
	8	Other Document	ANNEXUREIPEBC.pdf	PEBC ANNEXURE I	30.78
	9	Other Document	ANNEXUREIPEBC.pdf	PEBC ANNEXURE II	23.28
	10	BOQ	BOQ_31081.xls	PRICE BID	241.50

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	shalinisharma@bhel.in	SHALINI SHARMA	SHALINI SHARMA
2.	vineet.yadav@bhel.in	VINEET YADAV	VINEET YADAV
3.	vkrahour@bhel.in	Vijay Kumar Rathour	VIJAY KUMAR RATHOUR
4.	kuldeepk@bhel.in	Kuldeep Kawreti	KULDEEP KAWRETI

GeMARPTS Details

GeMARPTS ID	WANOU6E9N2WP
Description	420kV RIP Bushings
Report Initiated On	26-Oct-2023
Valid Until	25-Nov-2023

Tender Properties

Auto Tendering Process allowed	No	Show Technical bid status	Yes
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Show Finance bid status	Yes	Show Bids Details	No
BoQ Comparative Chart model	Normal	BoQ Compartive chart decimal places	2
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No
Show Bid Details in Public Domain stage	Technical Bid Opening		

TIA Undertaking

S.No	Undertaking to Order	Tender complying with Order	Reason for non compliance of Order
1	PPP-MII Order 2017	Agree	
2	MSEs Order 2012	Agree	

Tender Inviting Authority

Name	VED PRAKASH SHUKLA
Address	BHEL BHOPAL

Tender Creator Details

Created By	SHALINI SHARMA
Designation	Sr Mgr
Created Date	26-Oct-2023 04:28 PM



BPC 0007

**ENQUIRY
TWO PART BID**

**भारत हेवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल - ४६२०२२(भारत)
सामग्री प्रबंधन विभाग
BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL – 462022(INDIA)
MATERIALS MANAGEMENT DIVISION**

TIN NO. 23573600001 | ECC NO. AAACB4146PXM009 | MPCT NO. HEL/05/01/0001/S15/11/79
PHONE: 91-755-2500100 (7 LINE) | FAX: 91-755-2500023 | WWW.BHEL.BHOPAL.COM

ENQUIRY NO E7533030
ENQUIRY DATE 26/10/23
ENQUIRY DUE DATE 27/11/23

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SUPP NAME AND ADDRESS	SUPP CODE	REV CD	REV NO	REV DATE	NO OF CATY2	NO OF CATY3	ENQ NO OF ITEMS	INDENT NO
OFFICE COPY		1	0	NA	0	0	1	242130006
	GUARANTEE CERTIFICATE	Y	SUPPLY CONDITION AS PER PO					
	TEST CERTIFICATE	Y						
	INSTRUCTION BOOKLET	N	TECHNICAL CONDITION AS PER BHEL DRAWING/ TECHNICAL SPECIFICATION					
	SAMPLE	N						
GATE PASS	Y	INSPECTION CONDITION BY BHEL/ CUSTOMER/ TPIA AT SUPPLIER'S WORKS						

NOTE: QUOTE PRICE BOTH IN FIGURES & WORDS. IN CASE OF MISMATCH PRICE IN WORDS WILL BE VALID, QUOTATIONS NOT BEARING ENQUIRY NO AND DUE DATE LIABLE TO BE REJECTED.

SL NO	MATERIAL CODE	DESC	UNIT	ITEM QTY	LOT NO	LOT QTY	DEST	DELIVERY DATE
1	TR4670476068	420KV, 2000A RIP BUSHING AS PER BHEL SPEC BCE/PS/420/14 REV01	NO	8.000	2	2.000	212	28/02/24
					1	6.000	212	31/01/24

REMARK 1. PLEASE QUOTE ON FIRM RATES BASED AS PER ENCLOSED ANNEXURE T&C (3A & 3B), & PURCHASE SPECIFICATION TO ENQUIRY. 2. DETAILED TERMS & CONDITIONS AS PER BP-200102A. SUPPLIER TO QUOTE IN COMPLIANCE WITH THESE TERMS & CONDITIONS. ANY DEVIATION/ NON COMPLIANCE TO BE CITED IN THE OFFER, ELSE THEY SHALL BE DEEMED ACCEPTABLE. 3. RATES SHOULD BE ON FOR BHEL BHOPAL BASIS FOR INDIAN VENDORS AND CIP JNPT NHAVA SHEVA SEAPORT MUMBAI FOR FOREIGN VENDORS. 4. VALIDITY OF YOUR QUOTATION SHOULD BE AT LEAST 120 DAYS FROM ENQUIRY OPENING DATE. 5. PLEASE SUBMIT OFFER IN TWO PARTS BID. 6. MII & MSE PURCHASE PREFERENCE SHALL BE APPLICABLE FOR THIS TENDER ENQUIRY AS PER GOI /DPIIT PPP-MII LATEST CIRCULARS. 7. PRE QUALIFICATION REQUIREMENT- PQR SHALL BE APPLICABLE AS PER ENCLOSED PQR WITH ENQUIRY. 8. OFFERS ARE INVITED FROM ONLY M/S NTPC APPROVED VENDORS. KINDLY SUBMIT M/S NTPC APPROVAL FOR RESPECTIVE KV CLASS AS PER PQR. 9. THE EVALUATION CURRENCY FOR THIS TENDER SHALL BE INR. 10. THE IEM APPOINTED FOR THIS CONTRACT IS AS UNDER 1) SHRI OTEMDAI, IAS (RETD.) 2) SHRI BISHWAMITRA PANDEY, IRAS (RETD.) AND SHRI MUKESH MITTAL, IRS (RETD.) 11. AS PER GOVERNMENT OF INDIA GUIDELINES, THIS CONTRACT WILL BE COVERED UNDER INTEGRITY PACT. SIGNED AND SEALED INTEGRITY PACT ON ALL PAGES MUST BE SUBMITTED WITH OFFER. 12. RESTRICTION TO QUOTE BY BIDDERS FROM COUNTRIES HAVING LAND BORDER WITH INDIA, AS PER PUBLIC PROCUREMENT ORDER ISSUED BY DEPARTMENT OF EXPENDITURE, GOVT. OF INDIA ([HTTPS://DOE.GOV.IN/SITES/DEFAULT/FILES/OM%20DATED%2023.07.2020.PDF](https://doe.gov.in/sites/default/files/om%20dated%2023.07.2020.pdf)) AND ITS AMENDMENTS ISSUED FROM TIME TO TIME SHALL BE APPLICABLE FOR THIS TENDER. 13. QUANTITY VARIATION OF +/-25% IS APPLICABLE IN THIS TENDER.

DRAWING Y PURCH SPEC Y CATALOUGE N PLAN N TWO PART BID Y

S.NO	INDENT NO	ITEM NO	CATEGORY	ENQUIRY QTY.
1	242130006	1	259300	8.000

NOTE: BHEL, BHOPAL'S Standard Terms & Conditions BP4255/MM5533 rev02 for imports and BP4255/MM5527 rev03 for indigeneous procurements form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

SPECIAL REMARKS	<p>NAME : SHRI VED PRAKASH SHUKLA DESG : ENGINEER</p> <p align="center">SIGN & SEAL</p>
------------------------	--

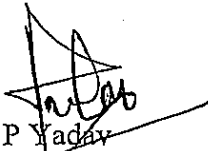


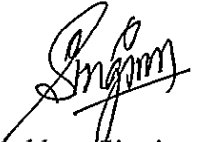
BHARAT HEAVY ELECTRICALS LIMITED BHOPAL

PRE QUALIFICATION REQUIREMENT(PQR) PI NO.- 242130006

Date: 18.08.2023

Sl. No.	Description	Vendor's remarks (Y/N)
1.	The vendor should be either manufacturer of RIP bushings as per BHEL Enquiry <u>OR</u> their authorized representative. Authorized representative to submit authorization letter from the manufacturer as a documentary proof.	
2.	<u>420KV RIP Bushing:</u> The manufacturer should be approved by NTPC for 420KV RIP bushings (or higher voltage ratings) as on bid opening date. Supplier to submit NTPC approval letter/drg/type test reports in support of the same.	

Prepared by: 
A P Yadav
Engineer (BCE)

Approved by: 
Singiren.E.Kandulna
Manager (BCE)


K.M.NAICK
[HOD/BCE] 02/09/23

1660057/2023/HEP-CIE40800



BHARAT HEAVY ELECTRICAL LIMITED, BHOPAL

SPECIFICATION CUM COMPLIANCE CERTIFICATE OF 420kV, 2000A RIP BUSHINGS

NOTE:-

- 1 The "Offered" Column and where applicable, the "Deviations" & "Remarks" Column of this format shall be filled in by the Vendor and submitted along with the offer. Inadequate / incomplete, ambiguous, or unsustainable information against any of the clauses of the specifications/requirements shall be treated as non-compliance.
- 2 The offer and all documents enclosed with offer should be in English language only.

NAME & ADDRESS OF THE SUPPLIER :		NAME & ADDRESS OF THE INDIAN AGENT :	
TELEPHONE NOS.:		TELEPHONE NOS.:	
FAX NOS.:		FAX NOS.:	
E-MAIL ADDRESS :		E-MAIL ADDRESS :	
SCOPE: SUPPLY OF 420 KV, 2000A, BIL - 1550KVp, P.FREQ VOLTAGE - 750KVrms, RESIN IMPREGNATED PAPER (RIP) CONDENSER BUSHINGS COMPLYING WITH THE SPECIFICATIONS AS BELOW :			
Spec No. : BCE/PS/420/14 Rev 01			
Date: 21.09.2021			
SR.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED	REMARKS
1.0	WORKPIECE MATERIAL		
1.1	Item :		
	420 KV, 2000A, BIL - 1550KV, P.Freq. Voltage -750KV rms, Resin Impregnated Paper (RIP) Condenser Bushing	Vendor to note	
2.0	SPECIFICATION :		
2.1	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/ Reactor with bushing erected and provided with proper support from one foundation to another foundation within the substation area.	Vendor to Confirm	
2.2	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 during contract stage.	Vendor to Confirm	

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Rev 01

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SR.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED	REMARKS
2.3	The 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.	Vendor to Confirm	
2.4	Where current transformers are provided, the bushings shall be removable without disturbing the current transformers.	Vendor to Confirm	
2.5	Bushings of identical rating shall be interchangeable to optimise the requirement of spares.	Vendor to Confirm	
2.6	These bushings are for NTPC India contracts and shall be manufactured meeting their requirements. Drawings, Quality and test schedules etc shall be got approved by BHEL/ NTPC before commencement of manufacturing.	Vendor to Confirm	
2.7	Polymer / Composite Insulator		
2.7.1	The hollow silicone composite insulators shall comply with the requirements of the IEC publications IEC 61462 and the relevant parts of IEC 62217.	Vendor to Confirm	
2.7.2	The design of the composite insulators shall be tested and verified according to IEC 61462 (Type & Routine test).	Vendor to Confirm	
2.7.3	Polymer / composite insulator shall be seamless sheath of a silicone rubber compound.	Vendor to Confirm	
2.7.4	The housing & weather sheds should have silicon content of minimum 30% by weight.	Vendor to Confirm	
2.7.5	It should protect the bushing against environmental influences, external pollution and humidity.	Vendor to Confirm	
2.7.6	It shall be extruded or directly moulded on the core.	Vendor to Confirm	
2.7.7	The interface between the housing and the core must be uniform and without voids.	Vendor to Confirm	
2.7.8	The strength of the bond shall be greater than the tearing strength of the polymer.	Vendor to Confirm	
2.7.9	The manufacturer shall follow non-destructive technique (N.D.T.) to check the quality of jointing of the housing interface with the core.	Vendor to Confirm	
2.7.10	The technique being followed with detailed procedure and sampling shall be finalized during finalization of MQP.	Vendor to Confirm	

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Date: 21.09.2021

SR.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED	REMARKS
2.7.11	The weather sheds of the insulators shall be of alternate shed profile as per IEC 60815 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.	Vendor to Confirm	
2.7.12	The vulcanization for extrusion process shall be at high temperature and for injection moulding shall be at high temperature & high pressure.	Vendor to Confirm	
2.7.13	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.	Vendor to Confirm	
2.7.14	The track resistance of housing and shed material shall be class 1A4.5 according to IEC 60587.	Vendor to Confirm	
2.7.15	The strength of the weather shed to sheath interface shall be greater than the tearing strength of the polymer.	Vendor to Confirm	
2.7.16	The composite insulator shall be capable of high pressure washing.	Vendor to Confirm	
2.8	End fittings shall be free from cracks, seams, shrinks, air holes and rough edges.	Vendor to Confirm	
2.9	End fittings should be effectively, sealed to prevent moisture ingress, effectiveness of sealing system must be supported by test documents.	Vendor to Confirm	
2.10	All surfaces of the metal parts shall be perfectly smooth with the projecting points or irregularities which may cause corona.	Vendor to Confirm	
2.11	All load bearing surfaces shall be smooth and uniform so as to distribute the loading stresses uniformly.	Vendor to Confirm	
2.12	Clamps and fittings shall be of hot dip galvanised/stainless steel.	Vendor to Confirm	
2.13	Bushing turrets shall be provided with vent pipes, to route any gas collection through the Buchholz relay.	Vendor to Confirm	
2.14	No arcing horns shall be provided on the bushings.	Vendor to Confirm	
2.15	Bushings shall be provided with provision for long term storage to protect from moisture and rodents. The oil side shall be provided with tank which can be filled with oil. Tank shall have necessary provision for oil filling, level gauge etc. Suitable covering to be provided on air end side to protect from any damage. The arrangement shall be suitable for storage in horizontal / vertical direction in outdoor location.	Vendor to Confirm	
2.16	The terminal marking and their physical position shall be as per IEC: 60076.	Vendor to Confirm	

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SR.NO.	DESCRIPTION FOR BHEL REQUIREMENT		SPECIFIED / TO BE CONFIRMED	REMARKS
2.17	Bushing handling and lifting tools shall be supplied alongwith each bushing for which cost shall be deemed included.		Vendor to Confirm	
2.18	Valid type test report for all type tests as per IEC : 60137 including Snap Back / Seismic test for 420KV of similar design conducted not earlier than 5 years from the bid opening date, shall be submitted alongwith the bid. The Type Test reports conducted at third party lab or witnessed by third party shall be submitted.		Vendor to Confirm	
2.19	In case valid type test report as mentioned under Sr. No. 2.18 above is not available, then vendor has to conduct type test in presence of BHEL / Customer representative before the delivery of first lot , at no extra cost.		Vendor to Confirm	
3	Technical Parameters			
3.1	Rated Voltage	420 kV	Vendor to specify	
3.2	Rated Current (Min.)	2000 A	Vendor to specify	
3.3	Lightning impulse withstand voltage	1550 kVp	Vendor to specify	
3.4	Switching impulse withstand voltage	1175 kVp	Vendor to specify	
3.5	One minute power frequency withstand voltage	750 kVrms	Vendor to specify	
3.6	Minimum total creepage distances	10500 mm	Vendor to specify	
3.7	Tan delta of bushings	< 0.004	Vendor to specify	
3.8	Max partial discharge level at Um	< 10 pC	Vendor to specify	
3.9	Test tap voltage withstand level	2 kVrms	Vendor to specify	
3.10	CT space min.	400 mm	Vendor to specify	
3.11	Oil End Length	1640mm	Vendor to specify	
3.12	Type of Lead	Draw Rod/ Bottom Palm type based on NTPC approval.	Vendor to confirm	
4.0	DOCUMENTATION : Following documents in English language should be sbmitted along with the bid for our evaluation		Vendor to Confirm	
4.1	OGA Drawing		Vendor to submit	
4.2	Guranteed Technical Particulars		Vendor to submit	
4.3	Manufacturing Quality Plan		Vendor to submit	

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Date: 21.09.2021			
SR.NO.	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED	REMARKS
4.4	Type test reports	Vendor to submit	
4.5	Catalogues, O&M Manuals	Vendor to submit	
5.0	GUARANTEE :		
5.1	12 months from the date of commissioning of the system and 18 months from the date of supply, whichever is later.	Vendor to Confirm	
6.0	ROUTINE TEST INSPECTION:	Vendor to confirm	
6.1	Routine tests may be witnessed by BHEL/ NTPC representatives at supplier's works.	Vendor to confirm	
6.2	Air-fare, boarding & lodging for the BHEL /NTPC representatives shall be borne by BHEL/ NTPC.	Vendor to note	
6.3	Competent, English speaking experts shall be arranged by the vendor during inspection.	Vendor to Confirm	

Note:Min. Arcing length =3500mm