कदम कदम मिलाना है ग्राहक सफल बनाना है

Marching Towards Business Excellence



ENQUIRY

TWO PART BID

E-TENDER

भारत हैवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल— ४६२०२२ (भारत) सामग्री प्रबंधन विभाग

BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL-462022 (INDIA) MATERIALS MANAGEMENT DIVISION

TIN NO- 23573000001 ECC NO- AAACB4146PXM009 MPCT NO- HEL/05/01/0001/S15/11/79 PHONE NO: 91-755-2500100 FAX: 91-755-2500023 www.bhel.com

ENQUIRY NO E5043005 **ENQUIRY DATE** 30/01/25 ENQUIRY DUE DATE 10/02/25

 \mathbf{E}

SUPP	NAME AND ADDRE	ESS	SUPP CODE	REV CD	REV NO	REV D	ATE	NO OF C	CATY2	NO	OF CATY	23 ENQ NO OF ITEM	IS IN	NDENT NO
			0	1	0	NA		1		7		1	34	12840012
			GUARANTEE CI	ERTIFICATE	Y	SUPPL	Y COND	ITION	FREIC	GHT PE	REPAID DO	OOR DELIVERY BY ROA	D TO	
			TEST CERTIFIC	ATE	Y				ICF/P	LW O	R OTHER I	RAILWAY WORKS IN IN	DIA OR	BHEL BHOPA
			INSTRUCTION I	BOOKLET	N	TECHN	NICAL C	ONDITION	MATI	ERIAL	SHALL BE	E SUITABLY PACKED TO	O AVOID	ANY DAM
			SAMPLE		N				AGE					
			GATE PASS		Y	INSPE	CTION C	ONDITION				AILWAY'S TPI OR BHEL 07 (REV. 05)	OR WTO	C AS PER SPEC
NOTE:	QUOTE PRICE B LIABLE TO BE R	OTH IN FIGURES & WOI EJECTED.	RDS.IN CASE OF N	IISMATCH PR	ICE IN WOR	RDS WIL	L BE VA	LID,QUOTA'	TIONS N	OT BI	EARING E	NQUIRY NO AND DUE	DATE	
SL	MATERIAL	DESC					UNIT	ITEM		QTY	LOT	LOT	DEST	DELIVERY
NO	CODE							QTY		VR%	NO	QTY		DATE
1	TM4571087020	AUXILLARY ALTERNAT					ST	2	200.000	30	1	30.000	428	26/04/25
		FOR 700(2X350) HF NO.CET/3.4/SP0018/T07 (2	30.000	428	26/05/25
		ONE AUXILIARY ALT	ERNATOR AND								3	30.000	428	26/06/25
		ASSOCIATED HARDWA	RE.								4	30.000	428	26/07/25
											5	30.000	428	26/08/25
											6	30.000	428	26/09/25
											7	20.000	428	25/10/25
REMA	RK REFER NIT	IN NIC E-TENDER PORTA	AL FOR DETAILS.										l	
D	RAWING N	PURCH SPE	CC Y	CATALO	DUGE N		Quality	y Surveill	ance P	la N	TW	O PART BID Y		

NOTE:BHEL,BHOPAL'S Standard Terms & Conditions BP200102 (Latest Revision) form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

Note: During Bid Evaluation, No loading of price with regard to preferential payment of within 45 days will be made on vendore falling under MSMED ACT - OCT 06

Please submit your lowest quotation in sealed envelop essentially superscribed with ENQUIRY NO, DUE DATE AND PARTY'S NAME so as to reach at TENDER ROOM, GROUND FLOOR, ADM BUILDING, BHEL, PIPLANI BHOPAL-462022 by 11.00 am of due date.

3.In case you are not making an offer against this Enquiry, we request you to post a regret letter.

SPECIAL REMARK: Bid to be submitted through e-procurement. Refer eproc link on BHEL Bhopal B2B site.

Documents Enclosed

2.Catalogue. 4.Quality Surveillance Plan.

1.Drawing.

3. Purchase specification.

DESG: DY.MANAGER

0755-2505880

manendra1@bhel.in

NAME: SHRI MANENDRA SINGH

SIGN & SEAL

1. This is only a request for Quotation & not an order.

4.Indian vendors to please indicate GSTIN on their quotation.

2.Small Scale industries should indicate SSI Regn. No. in Quotation/invoice.



ENQUIRY

TWO PART BID

E-TENDER

भारत हैवी इलेक्ट्रिकल्स लिमिटेड, पिपलानी, भोपाल- ४६२०२२ (भारत) सामग्री प्रबंधन विभाग

BHARAT HEAVY ELECTRICALS LIMITED, PIPLANI, BHOPAL-462022 (INDIA) MATERIALS MANAGEMENT DIVISION

TIN NO- 23573000001 ECC NO- AAACB4146PXM009 MPCT NO- HEL/05/01/0001/S15/11/79 www.bhel.com

PHONE NO: 91-755-2500100 FAX: 91-755-2500023 **ENQUIRY NO** E5043005 **ENQUIRY DATE** 30/01/25

ENQUIRY DUE DATE 10/02/25

E

SUPP NAME AND ADDRESS	SUPP CODE	REV CD	REV NO	REV DATE	NO OF CATY2	NO OF CATY3	ENQ NO OF ITEMS	INDENT NO	
		1	0	NA	1	7	1	342840012	
	GUARANTEE CERTIFICATE		Y	SUPPLY CONDITI	ION FREIG	FREIGHT PREPAID DOOR DELIVERY BY ROAD TO			
OFFICE COPY	TEST CERTIFICATE		Y		ICF/PL	W OR OTHER RAII	LWAY WORKS IN INDIA	OR BHEL BHOPAL.	
	INSTRUCTION E	BOOKLET	N	TECHNICAL CON	IDITION MATE	RIAL SHALL BE SU	ITABLY PACKED TO AV	OID ANY DAM	
	SAMPLE		N		AGE				
	GATE PASS		Y	INSPECTION CON	NDITION BY ICE	BY ICF/RITES/PLW/RAILWAY'S TPI OR BHEL OR WTC AS PER SPEC.			
					NO. CE	T/3.4/SP0018/T07 (F	REV. 05)		
NOTE: OHOTE DDICE DOTH IN FICHDES & WOL	DDC IN CACE OF M	MICMATCH DD	ICE IN WOL	DE WILL DE VALU	D OLIOTATIONS NO	AT DEADING ENO	HIDV NO AND DHE DAT	יזוי	

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	MATERIAL	DESC	UNIT	ITEM	QTY	LOT	LOT	DEST	DELIVERY
NO	CODE			QTY	VR%	NO	QTY		DATE
1	TM4571087020	AUXILLARY ALTERNATOR WITH RECTIFIER REGULATOR UNIT (RR	ST	200.000	30	1	30.000	428	26/04/25
		UNIT) FOR 700(2X350) HP DETC AS PER BHEL SPECIFICATION NO.CET/3.4/SP0018/T07 (REV. 05) DTD. 30.12.2023. EACH SET CONSISTS OF				2	30.000	428	26/05/25
		ONE AUXILIARY ALTERNATOR AND ONE RR UNIT ALONG WITH ASSOCIATED HARDWARE.				3	30.000	428	26/06/25
		ASSOCIATED HARDWARE.				4	30.000	428	26/07/25
						5	30.000	428	26/08/25
						6	30.000	428	26/09/25
						7	20.000	428	25/10/25

REMARK REFER NIT IN NIC E-TENDER PORTAL FOR DETAILS.

DRAWIN	NG	N	PURCH SPEC	Y	CATALO	UGE N		PLAN	N	TWO PART	BID Y		
SUPP CD. SUPP NAME			MSME	STATUS.	PMD	D Cust Appr S.NO INDENT NO IT			ITEM NO	CATEGORY	ENQUIRY QTY.		
	•								1	342840012	1	741630	200.000

NOTE:BHEL,BHOPAL'S Standard Terms & Conditions BP200102 (Latest Revision) form a part of this Enquiry. Bidders may obtain from us copies of these terms and conditions if not already available.

SPECIAL REMARKS: Bid to be submitted through e-procurement. Refer eproc link on BHEL Bhopal B2B site. NAME: SHRI MANENDRA SINGH

DESG: DY.MANAGER

0755-2505880

manendra1@bhel.in

SIGN & SEAL



HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5043005 DUE ON 10-01-2025

NIT TERMS & CONDITIONS:

SL.	DESCRIPTION	DETAILS
NO.		
1.	RATE	We intend to enter into a Rate Contract (RC) for ordering up to 18 months from RC freeze
	CONTRACT TERMS	date, i.e. RC is to be kept valid for ordering up to 18 months from RC freeze date. Ordering shall be done against firm requirement as & when needed by BHEL. BHEL
	TERIVIS	reserves the right to cancel/ short close the RC at any point of time even before the
		expiry of RC validity without assigning any reason whatsoever it may be.
2.	ITEM	AUXILLARY ALTERNATOR WITH RECTIFIER REGULATOR UNIT (RR UNIT) FOR 700(2X350)
	DESCRIPTION	HP DETC AS PER BHEL SPECIFICATION NO.CET/3.4/SP0018/T07 (REV. 05) DTD.
		30.12.2023. EACH SET CONSISTS OF ONE AUXILIARY ALTERNATOR AND ONE RR UNIT
		ALONG WITH ASSOCIATED HARDWARE.
3.	QUANTITY	200 Sets
4.	QUANTITY	± 30%
	VARIATION	
5.	DELIVERY	Delivery Shall be within 60 days from PO date.
	SCHEDULE	Lot wise delivery schedule: - weekly 8 sets maximum, monthly 30 sets maximum.
	REQUIREMENT	Early delivery is acceptable. Above is proposed delivery schedule for RC, actual delivery schedule shall be decided as
		per actual requirement.
		per actual requirement.
6.	DELIVERY	FOR Destination. Delivery destination shall be BHEL Bhopal/ICF Chennai / PLW Patiala /
	TERMS	Other Indian railway works anywhere in India as per BHEL advise.
		In case of supply to Railway site, item to be treated as GSOS Item.
7.	DELIVERY	All dispatched documents and cases containing these items shall indicate the description
	INSTRUCTION	and quantity of stores, name & address of consignee, gross weight of package, name of
		contractor along with BHEL name and distinct marking.
8.	PAYMENT TERMS	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 16)
		i.e. 100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for
		Medium enterprises as registered in Udyam Certificate as per relevant MSME act in
		force) and subject to acceptance of material and relevant documents at BHEL.
		Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI
		base rate + 6% for the purpose of bid evaluation.
9.	SPLITTING OF	Yes, on 2 (two) eligible sources with quantity distribution ratio of 65% & 35% to L-1 and
	ORDER	the other bidder accepting L-1 rates in sequence, subject to minimum 3 qualified bidders.
		For ascertaining bidder for 35% quantity, HESG equivalent rate of L-1 bidder shall be
		counter-offered to L-2, L-3 and so on sequentially until any bidder accepts the same.
		In case of only 2 qualified bidders, BHEL reserves the right for distribution/non-distribution
		among 2 bidders. In case of only one qualified bidder or in case no bidder agrees to accept



HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED

		the counter-offered HESG equivalent rate of L-1, BHEL may decide to award entire 100%
		quantity to L-1 bidder.
		Distribution in compliance with latest guidelines for MII and MSE shall also be followed.
10.	TECHNICAL PQR	Technical Pre-Qualification Requirements (T-PQR) for procurement of the items is
	(T-PQR)	attached with the NIT.
		Compliance of all the points in T-PQR is mandatory. In absence of compliance of above and
		non-submission of documents required against the T-PQR, the Vendor's offer is liable to
		be rejected.
		Duly filled T-PQR with desired documents shall be submitted by the Vendor along with
		the offer.
		Information/ compliance/ documents submitted by vendor shall be authentic in all aspects.
		In case any deviation/ false information/ forged documents are observed / revealed later
		on, BHEL is free to initiate appropriate punitive proceeding against the Vendor as per
		Prevalent Processes and Guidelines of Company.
11.	FINANCIAL PQR	Not applicable
	(F-PQR)	The applicable
12.	QAP	Not applicable
13.	BID PARTS	Offer shall be submitted by the bidders in Two Parts,
13.	DID FARTS	i.e. Part-I Technical cum Commercial bid & Part-II Price bid.
		i.e. Fart-i Technical Cum Commercial bid & Fart-ii Frice bid.
14.	PENALTY / LD	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 9)
		i.e. 0.5% of the undelivered portion per week of delay or part thereof, subject to a
		maximum of 10% of the undelivered order value owing to delayed delivery.
15.	PRICE BASIS	Firm Price basis
16.	PRICING TERMS	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 12)
17.	PRICE VALIDITY	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 13)
		i.e. Offer shall be valid for a period of 90 days from the date of Techno- commercial (Part-
		I) bid opening date.
		, and opening dates
18.	TAXES &	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 14)
	DUTIES	(
19.	TECHNICAL	VENDOR SHALL SUBMIT CLAUSEWISE ACCEPTANCE OF BHEL SPECIFICATION
	CONDITION	NO. CET/3.4/SP0018/T07 (REV. 05) DTD. 30.12.2023 ALONG WITH TECHNO-
		COMMERCIAL OFFER.
		MATERIAL SHALL BE SUITABLY PACKED TO AVOID ANY DAMAGE.
		MATERIAL SHALL BE SUITABLY PACKED TO AVOID ANY DAMAGE.
20.	SAMPLE	MATERIAL SHALL BE SUITABLY PACKED TO AVOID ANY DAMAGE. No
		No
20.	INSPECTION	No As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 17)
		No As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 17) - BY ICF/RITES/PLW/RAILWAY'S TPI OR BHEL OR WTC AS PER SPEC. NO.
21.	INSPECTION CONDITION	No As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 17) - BY ICF/RITES/PLW/RAILWAY'S TPI OR BHEL OR WTC AS PER SPEC. NO. CET/3.4/SP0018/T07 (REV. 05)
	INSPECTION	No As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 17) - BY ICF/RITES/PLW/RAILWAY'S TPI OR BHEL OR WTC AS PER SPEC. NO.



HEAVY ELECTRICAL PLANT, BHOPAL

BHARAT HEAVY ELECTRICALS LIMITED

23.	GUARANTEE /	As per CL. 14 OF BHEL SPEC. NO. CET/3.4/SP0018/T07 (REV. 05) and other terms &
	WARRANTY	condition shall be governed by BHEL GTC of ENQUIRY (BP200102B, Cl. No. 18)
24.	GUARANTEE	GC to be supplied along with the material and GC should incorporate Drg. /Spec. as
	CERTIFICATE	mentioned in item description.
25.	EVALUATION	overall L1 basis
	CRITERIA	
26.	BID SECURITY/	Not Applicable
	Earnest Money	
	Deposit (EMD)	
27.	PERFORMANCE	A. Performance Bank Guarantee (PBG), hereafter referred as performance security is mandatory for the successful bidder awarded the contract.
	SECURITY (PBG)	B. The total amount of Performance Security is 5% of the contract value.
		C. Performance Security is to be furnished by 14 (fourteen) days after notification of the award)
		and it should remain valid for a period of 60 days beyond the date of completion of all
		contractual obligations of the supplier, including warranty obligations. D. In case of delay in submission of performance security, enhanced performance security which
		would include interest (SBI rate + 6%) for the delayed period, shall be submitted by the bidder.
		Further, if performance security is not submitted till such time the first bill becomes due, the
		amount of performance security due shall be recovered from the bills along with due interest.
		E. Modes of deposit:
		a) Performance security may be furnished in the following forms:
		(i) Local cheques of Scheduled Banks (subject to realization)/ Pay Order/ Demand Draft/ Electronic Fund Transfer in favour of BHEL.
		(ii) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format should have the approval of BHEL.
		(iii) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act (FDR should be in the name of the Contractor, a/c BHEL).
		(iv) Securities available from Indian Post offices such as National Savings Certificates, Kisan Vikas Patras etc. (held in the name of Contractor furnishing the security and duly endorsed/hypothecated/pledged, as applicable, in favour of BHEL).
		(v) Insurance Surety Bond.
		(Note: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith)
		b) In case of GTE tenders, the performance security should be in the same currency as the contract and must conform to Uniform Rules for Demand Guarantees (URDG 758) - an international convention regulating international securities.
		F. Forfeiture of Performance Security:
		The performance security will be forfeited and credited to BHEL's account in the event of a breach of contract by the supplier.
		 G. Performance Security should be refunded to the contractor without interest, after he duly performs and completes the contract in all respects within 60 days of completion of all such obligations including the warranty under the contract. H. The Performance Security shall not carry any interest.



HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED

28.	REVERSE AUCTION	It is declared upfront that this enquiry shall be subject to Reverse Auction (RA). Bidders may kindly note the Reverse Auction (RA) field as mentioned and asked for in enquiry template & ensure to proceed with choosing "YES" against same when asked during submission of their offer to give their acceptance for participation in RA. BHEL shall be resorting to Reverse Auction (RA) (guidelines are available on https://www.bhel.com/guidelines-reverse-auction-2024) for this tender. RA shall be conducted among Techno-Commercially qualified bidders, inline to above guidline. Price bid of all Techno-Commercially qualified bidders shall be opened for purpose of RA and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in reverse auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.
29.	MSE PREFERENCE	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 29)
30.	PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA)	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 33) For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/ Non-local supplier and purchase preference to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 19.07.2024 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT The local content to categorize a supplier as a Class-I local supplier / Class-II local supplier / Non-Local supplier and purchase preference to Class-I local supplier, is as defined in above circular issued by DPIIT/ Nodal Ministry. Bidders to also inform the Actual Percentage of the Local Content and the Complete Address of the Location of Local Value Addition as per the attached MII format, failing which no purchase preference shall be granted. In case the bid value is more than Rs. 10 Crore, the declaration relating to the Actual Percentage of the Local Content and the Complete Address of the Location of Local Value Addition shall be Certified by the Statutory Auditor or Cost Auditor, if the OEM is a Company and by a Practicing Cost Accountant or a Chartered Accountant for OEM other than Companies as per the above circular. For contracts valuing more than Rs 10 Crores, local content (in cases of self-certification submitted by bidders at the time of tendering) will be re-verified during execution of contract by Cost/ Chartered Accountant/ Statutory Auditor/Cost Auditor (as applicable) and in case of defaults, penalty upto 10% of the contract value shall be imposed. However,
		contract once awarded shall not be terminated on this account. Bidders or successors can be debarred for false declarations for up to 2 years. Debarred suppliers not eligible for preference in any other procuring entity.
31.	INTEGRITY	As per attached BHEL GTC of ENQUIRY (BP200102A, Cl. No. 30 & 32). Integrity Pact to be sealed
	PACT (IP),	& signed along with a witness and submitted along with the offer.



HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5043005

DUE ON 10-01-2025

	FRAUD	(A) IP is a tool to ensure that activities and transactions between the Company and its Bidders/
	PREVENTION	Contractors are handled in a fair, transparent and corruption free manner. Following Independent
	POLICY &	External Monitors (IEMS) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL. https://www.bhel.com/iems-under-integrity-pact-1
	INTEGRITY	1. Shri Bishwamitra Pandey, IRAS (Retd.) — iem1@bhel.in
	COMMITMENT	2. Shri Otem Dai, IAS (Retd.) – iem2@bhel.in
		3. Shri Mukesh Mittal, IRS (Retd.) – iem3@bhel.in
		(B) The IP as enclosed with the tender is to be submitted (duly signed & sealed by authorized
		signatory) along with Techno-Commercial bid (Part-I, in case of two/ three part bid). Only those
		bidders who have entered into such an IP with BHEL would be competent to participate in the
		bidding. In other words, entering into this pact would be a preliminary qualification.(C) Please refer Section-8 of IP for Role and Responsibilities of IEMS. In case of any complaint arising
		out of the tendering process, the matter may be referred to any of the above IEM(s). All
		correspondence with the IEMS shall be done through email only.
		NOTE:
		No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the
		clarifications, time extensions or any other administrative queries, etc. on the tender issued. All
		such clarification/ issues shall be addressed directly to the tender issuing (procurement)
		department's officials whose contact details are provided below:
		Details of contact person(s):
		(1) Name: Manendra Singh (Dy. Manager)
		Deptt: MNX Address: Block-9/Annexe/EW/GF, BHEL, Piplani, Bhopal - 462022
		Phone: <u>0755-250-5880</u>
		Email: manendra1@bhel.in
		(2) Name: Manoj Dueby (Engineer)
		Deptt: MNX
		Address: Block-9/Annexe/EW/GF, BHEL, Piplani, Bhopal - 462022
		Phone: <u>0755-250-2379</u> Email: manojdubey@bhel.in
32.	RESTRICTION	As per attached BHEL GTC of ENQUIRY (BP200102B, Cl. No. 34)
	UNDER RULE	
	144 (xi) GFR	
33.	ANNEXURE-IX	The Bidder/Supplier/Contractor will, when presenting his bid, declare whether other
		Family Firms or Sister Concern Affiliates/Subsidiary firms are participating in the same
		tender, so as to eliminate the possibility of cartel formation. Format for declaration is
		available in the NIT documents for this enquiry (Annexure-IX). Same is to be submitted
		with the offer.
34.	BIDDER'S	The bidder declares that they will not enter into any Illegal or Undisclosed Agreement or
	DECLARATION	Understanding, whether Formal or Informal with other bidder(s). 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.
		In case, the bidder is found having indulged in above activities, suitable action shall be
		taken by BHEL as per extant Policies/ Guidelines.
35.	CONFLICT OF	A bidder shall not have conflict of interest with other bidders. Such conflict of interest can
	INTEREST	lead to anti-competitive practices to the detriment of Procuring Entity's interests. The
	AMONG	bidder found to have a conflict of interest shall be disqualified. A bidder may be
	BIDDERS/	considered to have a conflict of interest with one or more parties in this bidding process,
	AGENTS	if:
		Page 5 of 7



HEAVY ELECTRICAL PLANT, BHOPAL

BHARAT HEAVY ELECTRICALS LIMITED

		a) they have controlling partner (s) in common; or
		b) they receive or have received any direct or indirect subsidy/ financial stake from any of
		them; or
		c) they have the same legal representative/agent for purposes of this bid; or
		d) they have relationship with each other, directly or through common third parties, that
		puts them in a position to have access to information about or influence on the bid of
		another Bidder; or
		e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder
		in more than one Bid will result in the disqualification of all bids in which the parties are
		involved. However, this does not limit the inclusion of the components/ sub-assembly/
		Assemblies from. one bidding manufacturer in more than one bid; or
		f) In cases of agents quoting in offshore procurements, on behalf of their principal
		manufacturers, one agent cannot represent two manufacturers or quote on their behalf
		in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer.
		There can be only one bid from the following:
		1. The principal manufacturer directly or through one Indian agent on his behalf; and
		2. Indian/foreign agent on behalf of only one principal;
		or
		g) A Bidder or any of its affiliates participated as a consultant in the preparation of the
		design or technical specifications of the contract that is the subject of the Bid; or
		h) In case of a holding company having more than one independently manufacturing units,
		or more than one unit having common business ownership/management, only one unit
		should quote. Similar restrictions would apply to closely related sister companies. Bidders
		must proactively declare such sister/ common business/ management units in same/
		similar line of business. "
36.	EVALUATION IN	In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective
	CASE OF MORE	L-1 will be decided by soliciting discounts from the respective L-1 bidders.
	THAN ONE L-1	In case more than one bidder happens to occupy the L-1 status even after soliciting
	BIDDER	discounts, the L-1 bidder shall be decided by a toss/draw of lots, in the presence of the
		respective L-1 bidder(s) or their representative(s).
		Ranking will be done accordingly. Decision of BHEL in such situations shall be final and
		binding.
37.	SPECIAL	Bidders who fall under MSE (Micro & Small Enterprises only) and fail to upload 'UDYAM
	CONDITIONS	Registration Certificate (URC)' shall automatically be considered as Non-MSE supplier for
		this tender.
		Further, it is to be noted that MSE benefits are not being extended to Agent/ Dealer/
		Trader/ Distributor (i.e. Other than manufacturer). Supplier has to also provide
		supporting document(s) such as Agreement Between OEM & Bidder(s) etc.
		Identification must. Soon after rejection of material, it is to be ensured by supplier that
		material should be taken back maximum within two weeks after communication for
		rectification/ replacement & supply back the rectified/ fresh material to BHEL Bhopal
		within 30 days from rejection. In the event of non-lifting of rejected material by supplier,
		BHEL will not be responsible for loss of such items to the supplier in any case.
		Offers of suppliers who are in 'HOLD/BANNED' status in BHEL Bhopal PMD shall not be
		considered.
		1



HEAVY ELECTRICAL PLANT, BHOPAL BHARAT HEAVY ELECTRICALS LIMITED

BHEL ENQUIRY NO. E5043005 DUE ON 10-01-2025

38.	OTHER TERMS	Unregistered vendors to submit documents required for registration to BHEL Portal Online (https://bhel.com/supplier-registration). Other Terms & Conditions as per attached BHEL GTC of ENQUIRY (BP200102B)
	& CONDITIONS	Any deviation of NIT, BHEL GTC of ENQUIRY (BP200102B) and BHEL PO Terms, where vendor response is not affirmative to be clearly indicated, else BHEL will consider that all above Terms & Conditions are acceptable to vendors.
39.	GEM REGISTRATION	As you are kindly aware that Government e-Marketplace (GeM) is a one stop portal to facilitate Online Procurement of Goods & Services required by various Government Departments/ Organizations/ PSUs. GeM aims to enhance transparency, efficiency and speed in public procurement. Detailed instructions/ guides/ videos/ FAQs for registration and processes are available on the portal (https://gem.gov.in). BHEL being a PSU, would like that its suppliers/ contractors also have visibility on this portal so that GeM can be used for procurement by BHEL. Hence, you are requested to get yourselves registered on GeM.
40.	TENDER FEE	Not applicable
41.	BID SUBMISSION WITHIN DUE DATE & TIME	No request for extension of tender due date will be entertained at the time of tender opening and after due date under any circumstances. Hence, all bidders are requested to submit their bid well within due date and time only. BHEL reserves the right for extension of tender based on the situation without assigning any reason whatsoever it may be.
42.	DOCUMENTS TO BE FURNISHED ALONG WITH YOUR QUOTATION	Signed and Sealed copy of: - NIT - BHEL GTC of ENQUIRY (BP200102B) - BHEL PO Terms Duly Filled, Signed and Sealed copy of: - T-PQR along with all supporting documents - Annexure-IX in Company Letterhead - PPP-MII Certificate for local content - Integrity pact - Techno-Commercial Annexure Others:
		- UDYAM Registration Certificate (as applicable for MSME bidders only)

IT IS HEREBY MENTIONED THAT THIS IS E-TENDER SO OFFER SUBMITTED THROUGH E-PROCUREMENT PORTAL (www.eprocurebhel.co.in) SHALL ONLY BE CONSIDERED.

<u>Techno-Commercial Annexure</u> (To be filled by supplier and submit with offer)

Tende	er No.	E5043005		
Description :			IER REGULATOR UNIT (RR UNIT) FOR 700(2X350) HP DETC AS PE . 30.12.2023. EACH SET CONSISTS OF ONE AUXILIARY ALTERNA	
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any
1	Quotation reference no. & date	As per supplier		
2	HSN / SAC code	As per supplier		
<u>3</u>	Quotation currency Contact person	In INR As per supplier		
5	Phone / Mobile	As per supplier		
6	E-Mail IDs	As per supplier		
7	Order to be placed on (Also provide supplier code at BHEL Bhopal, If registered)	As per supplier		
8	Address	As per supplier		
9	Please specify delivery in weeks/ days (Specify item wise, lot wise as per RFQ)	As per NIT/ Accepted with deviation. (If select Accepted with deviation, please mention the deviation under remarks)		
10	Rate quoted on "FIRM" price basis	Firm		
11	Quoted for all the items of tender enquiry	Yes / No. (If "No" please mention item number of regreted items)		
12	Technical specifications	Accepted as per NIT / Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
13	Inspection	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
14	Test certificate & Gurantee certificate as per NIT, Drawings and specification will be submitted along with each consignment	Yes (In case of "No" your offer may be rejected).		
15	Brand name, if any.	As per supplier		
16	Supply from	As per supplier		
17	Terms of delivery ("FOR DESTINATION" means freight & insurance upto destination in supplier's scope	Accepted/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
18	Transit insurance (In supplier's scope)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		
19	CGST RATE (IN %)	As per supplier		
20	SGST RATE (IN %)	As per supplier		
	IGST RATE (IN %) UGST RATE (IN %)	As per supplier As per supplier		
23	Are you manufacturer of quoted item (s).	Yes / No		
24	Are you registered under MSMED ACT 2006 as small or micro. NOTE: - Firms registered under medium scale shall not be considered eligible for MSE benefits.	Yes / No (If select Yes, please enclosed valid UDYAM certificate)		
25	Terms of Payment (100% payment in 90 days of receipt (45 days for Micro & Small and 60 days for Medium enterprises as registered in Udyam certificate as per relevant MSME act in force) and subject to acceptance of material and relevant documents at BHEL. PI refer GTC BP200102B.)	As per NIT/ Accepted with deviation (If select Accepted with deviation, please mention the deviation)		

DATE:

Techno-Commercial Annexure

(To be filled by supplier and submit with offer)

Tende	er No.	E5043005		
Descr	iption :		ER REGULATOR UNIT (RR UNIT) FOR 700(2X350) HP DETC AS PE . 30.12.2023. EACH SET CONSISTS OF ONE AUXILIARY ALTERNA	
Sr. No.	ELEMENTS	Standards	To be offered/confirmed by supplier	Remarks, if any
26	SELF CERTIFICATION OF MINIMUM LOCAL CONTENT, IF MORE THAN 50% VALUE ADDITION IS IN INDIA. (Note- In case of tenders worth more than Rs. 10 crores, Suppliers shall necessarily submit certificate from statutory auditor or cost auditor or cost accountant or CA) Please also specify the amount of local content in India. EXAMPLE :if 100% INDIGENOUS (MADE IN INDIA) MARK "Y"/100%	As per supplier		
27	Details of location of value addition / manufacturing	As per supplier		
28	Other Charges (If any)	Applicable / Not Applicable. (If applicable please mention percentage (%) / Value (along with type of charges).		
29	Penalty for delayed performance as per BP200102B & NIT	Yes / No (In case of "No", your offer will be loaded suitably)		
30	Confirmation that documents pertaining to technical PQR & Financial PQR has been submitted	Yes / No		
31	Acceptance to "REVERSE AUCTION" if conducted (As per BHEL's RA policy)	Yes / No		
32	Submission of Declaration format with duly sealed & signed (Annexure IX, refer attached) regarding whether other family firms or sister concern affiliates / subsidiary firms are participating in the same tender.	(Yes / No) If No please specify the reason.		
33	Quotation Validity will be 90 days from the date of techno-commercial bid opening.	Yes		
34	Tender fees submitted	Yes / No	Not applicable	
35	Format of INTEGRITY PACT (IP) submitted with seal & sign along with witness. ACCEPTANCE TO PERFORMANCE SECURITY AS PER	Yes / No		
36	NIT ACCEPTANCE OF ALL COMMERCIAL TERMS & CONDITIONS AS PER THE NIT (INCLUDING BHEL'S GTC FOR ENQUIRY BP200102B AND BHEL PO TERMS)	Yes / No Yes/No (In case of "No" your offer may be rejected).		

(Signature of Authorised Signatory with Company Seal)

Name:
Designation within Company/Organization:
Name of the Company/Organization:
Address of the Company/Organization:

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BHEL-IP

AA:SSP:IP:R03 dtd 01-04-2022

Annexure-1

INTEGRITY PACT

Between

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

Auxiliary Alternator with RR unit for 700 HP DETC

(hereinafter referred to as "Contract"). 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 panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

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

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during 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 Indian Penal Code (IPC) and Prevention of Corruption 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 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. 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.
 - 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

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, terminate the contract, if already awarded, exclude from future business dealings and/ 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 (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above , the Bidder(s)/ Cotractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be-entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee , whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) 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 or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity 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 panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs 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 IEMs the option to participate in such meetings.

- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Prinicpal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word `Monitor' would include both singular and plural.

Section 9 - Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

BHEL-IP

Section 10 - Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

1300125	
For & On behalf of the Principal (Office Seal)	For & On behalf of the Bidder/ Contractor (Office Seal)
Place Bhand Date 30/01/25	
Witness: Maghadol 18 (Name & Address) Manendra Singh Dy. Manager (MNX) BHEL Bhopal	Witness:(Name & Address)

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PRE QUALIFICATION CRITERIA FOR AUXILIARY ALTERNATOR & RECTIFIER REGULATOR UNIT

SL. No.	Description		Supplier Comments
1	Offered Auxiliary Alternator & Rectifier Regulator Unit has to be type tested and approved by Indian Railways	Supplier to confirm & provide documentary proof.	
2	The OEM/Supplier should be Indian Railway approved and supplied min. 10 nos. auxiliary alternator & RR unit for similar application to Indian Railways.	Supplier to confirm & provide documentary proof.	
3	Offered Auxiliary Alternator & Rectifier Regulator Unit shall be as per BHEL Spec no. CET/3.4/SP0018/T07 (Rev 05) Dtd 30.12.2023	Supplier to confirm	

Sanjay Bhengra

Dy.Mgr/CET

Abhideep Chowdhury

Mgr/CET

I. Chattopadhyay

AGM & HOD (CET)



BHARAT HEAVY ELECTRICAL LIMITED TRANSPORTATION SYSTEMS GROUP & CENTRE FOR ELECTRIC TRANSPORTATION UNIT'S ADDRESS: PIPLANI, BHOPAL

SPECIFICATION CUM COMPLIANCE CERTIFICATION

FOR

AUXILIARY ALTERNATOR WITH RR Unit FOR APPLICATION IN 700HP (2x350HP) DETC SPECIFICATION NO: CET/3.4/SP0018/T07 (Rev.05)

REVISION	DATE	PREPARED BY	CHECKED BY	APPROVED BY
05	30/12/2023	Kuleshwar Prasad	RAHUL SINGH PATEL	J. challe padhyay I CHATTOPADHYAY

ADDRE	SS OF THE SUPPLIER :				
TELEPI	HONE NOS.:				
FAX NO	OS.:				
E-MAIL	ADDRESS:				
SNO	DESCRIPTION	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS	REMARKS
1.0	PURPOSE:				
1.1	The proposed Auxiliary alternator with Rectifier Regulator Unit (RRU) shall be utilized for under slung 700hp (2x350hp) Diesel Electric Tower Car (DETC) for Indian Railways.	vendor to confirm			
1.2	Each DETC shall be fitted with two auxiliary alternators with RRU. Auxiliary alternator shall be driven by diesel engine through carden shaft.	vendor to confirm			
2.0	SCOPE OF SUPPLY				
2.1	Auxiliary Alternator- 01 no. Rectifier Regulator Unit- 01 no.	vendor to confirm			
3.0	TECHNICAL DETAILS:				
3.1	Climatic conditions: Climatic conditions shall be as below: a) Atmospheric temperature: Metallic surface temperature under Sun: 75° C max. and in shade: 55 °C max. Minimum temperature: -10°C (Also snow fall in certain areas during winter	vendor to confirm			
	season).				

- b) **Humidity:** 100% saturation during rainy season
- c) Reference site conditions
 - i) Ambient Temp. : 50° C
 - ii) Humidity: 100%
 - iii) Altitude: 1000m above mean sea level.
- d) Rain fall:
 - i) Ranging from 1750 mm to 6250 mm.
 - ii) Number of rainy days/annum 120.
- e) **Atmosphere during hot weather:** Extremely dusty and desert terrain in certain areas. The dust concentration in air may reach a high value of 1.6 mg/m3. In many iron ore and coalmine areas, the dust concentration is very high affecting the filter and air ventilation system.
- f) Coastal area: Auxiliary Alternator and RRU shall be designed to work in coastal areas in humid and salt laden atmosphere with maximum. pH value of 8.5, sulphate of 7mg per liter, max. concentration of chlorine 6 mg per liter and maximum conductivity of 130 micro siemens/cm.
- g) **Vibration:** The equipment, sub-system and their mounting arrangement shall be designed to withstand satisfactorily the vibration and shocks encountered in service as specified below:
 - i. Maximum vertical acceleration 3.0g
 - ii. Maximum longitudinal acceleration 5.0g
 - iii. Maximum train acceleration 2.0g
 - (g acceleration gravity)

High level of 50g vibration and shocks. Accelerations over 500 m/s2 have been recorded at axle box levels for long periods during run. Vibrations during wheel slips are of even higher magnitude.

- h) **Wind speed:** High wind speed in certain areas, with wind pressure reaching 200kg/m2.
- i) The OHE car and its principal assemblies shall be designed and

Specification No. CET/3.4/SP0018/T07 (Rev.05)

	manufactured to give satisfactory performance in the tropical climate, having very dry & dusty regions in arid zones of the country, to humid coastal areas and extreme cold climate of the northern region.		
3.2	Technical Requirements		
3.2.1	Auxiliary Alternator: Self-cooled, brushless carden shaft driven auxiliary alternator of RDSO/Railway approved make, one with each engine shall be provided in the each inspection OHE Car (DETC) with suitable regulating equipment and Battery Charger to supply 122 V dc ± 5% regulated voltage from idle (700RPM) to max speed (2100 RPM). The alternator shall have a rating of minimum 8 kW. The Alternator shall be suitable for under slung application.	vendor to confirm	
3.2.2	The insulation of the alternator shall be Class "F" or better and the same shall not be affected by the Engine area environment, which may have traces of Diesel and Lube oil fumes.	vendor to confirm	
3.2.3	Mounting: For dimension refer attached sketch at Fig. 1&2. The complete drawing shall be submitted to BHEL for approval from RDSO/railway, if already not approved by RDSO/Railway and manufacturing shall be taken up only after of Drawings. Driving flange details, material specification, box dimensions etc. shall be furnished in a drawing and got approved.	vendor to confirm	
3.2.4		vendor to confirm	
3.2.5	(Completely protected against dust and jet of water from all directions).	vendor to confirm	
3.2.6	The Rectifier–Regulator box shall be Electro-galvanized and painted gray.	vendor to confirm	

Specification No. CET/3.4/SP0018/T07 (Rev.05)

3.2.7	The Regulator shall have provision of		vendor to confirm	
	voltage setting for adjustment depending			
3.2.8	The overall efficiency of the alternator ale	vendor to confirm		
	Regulator shall not be less than 70%.			
3.2.9	The Rectifier-Regulator shall conform to	IEC: 60-571.	vendor to confirm	
3.2.10	Following details of the equipment shall	be furnished by vendor:	vendor to confirm	
	a) Make & Model			
	b) Continuous and short time rating	& details of voltage and current		
	regulation	_		
	c) Bearing life and shaft size calcula	tion		
	d) Weight			
4.0	COMPLIANCE WITH NATIONAL / IN	NTERNATIONAL		
	STANDARD:			
4.1	It shall meet the standards as mentioned i	n clause 3.2.	vendor to confirm	
<u> </u>				
50	TOOLS:			
5.0	TOOLS:			
5.0		gigs, tools, instruments or testing	vendor to confirm	
5.0	Supplier shall offer separately any special kit which shall essentially be required		vendor to confirm	
5.0	Supplier shall offer separately any special		vendor to confirm	
5.0	Supplier shall offer separately any special kit which shall essentially be required		vendor to confirm	
6.0	Supplier shall offer separately any special kit which shall essentially be required		vendor to confirm	
	Supplier shall offer separately any special kit which shall essentially be required Alternator& RRU. QUALIFYING CRITERIA	for maintenance of Auxiliary	vendor to confirm vendor to confirm	
6.0	Supplier shall offer separately any special kit which shall essentially be required Alternator& RRU.	for maintenance of Auxiliary		
6.0	Supplier shall offer separately any special kit which shall essentially be required Alternator RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway.	for maintenance of Auxiliary nit is already type tested and		
6.0 6.1	Supplier shall offer separately any special kit which shall essentially be required Alternator& RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway. The OEM/supplier should have Indian I	for maintenance of Auxiliary nit is already type tested and Railway approved and supplied	vendor to confirm	
6.0 6.1	Supplier shall offer separately any special kit which shall essentially be required Alternator RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway.	for maintenance of Auxiliary nit is already type tested and Railway approved and supplied Unit for similar application to	vendor to confirm	
6.0 6.1	Supplier shall offer separately any special kit which shall essentially be required Alternator RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway. The OEM/supplier should have Indian I min. 10 nos. auxiliary alternators & RR	for maintenance of Auxiliary nit is already type tested and Railway approved and supplied Unit for similar application to	vendor to confirm	
6.0 6.1	Supplier shall offer separately any special kit which shall essentially be required Alternator RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway. The OEM/supplier should have Indian I min. 10 nos. auxiliary alternators & RR Indian Railways. Documentary proof for the supplier.	for maintenance of Auxiliary mit is already type tested and Railway approved and supplied Unit for similar application to the same shall be submitted by	vendor to confirm	
6.0 6.1 6.2	Supplier shall offer separately any special kit which shall essentially be required Alternator RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway. The OEM/supplier should have Indian I min. 10 nos. auxiliary alternators & RR Indian Railways. Documentary proof for the supplier. Indian Railways approved vendors who contact the supplier is supplied.	for maintenance of Auxiliary nit is already type tested and Railway approved and supplied Unit for similar application to the same shall be submitted by do not fulfill requisite eligibility	vendor to confirm vendor to confirm	
6.0 6.1 6.2	Supplier shall offer separately any special kit which shall essentially be required Alternator RRU. QUALIFYING CRITERIA Offered Auxiliary alternator & RR ur approved by Indian railway. The OEM/supplier should have Indian I min. 10 nos. auxiliary alternators & RR Indian Railways. Documentary proof for the supplier.	for maintenance of Auxiliary nit is already type tested and Railway approved and supplied Unit for similar application to the same shall be submitted by do not fulfill requisite eligibility but are found to be otherwise	vendor to confirm vendor to confirm	

	order only subjected to concurrence/acceptance from Indian Railwa Development order will be for maximum 6 nos. However, bala quantity shall be supplied only after prototype approval of 2 nos. for Railway. In case no offer is found suitable for placing a development order, full quantity will be ordered on the bulk suppliers. Detail delivery schedule of such developmental order will be different for bulk order, which will be finalized while placing the purchase order	rom ental en	
	this will require prototype clearance as per acceptance process.		
7.0	ERECTION AND COMMISSIONING	NA	
8.0	INSPECTION AND TESTING		
8.1	Type Test: 1. Verification of dimensions of assemblies of alternator, rectifier regulating equipment. 2. Temperature rise test at minimum speed for full output as well as maximum speed without Air over the auxiliary Alternator and rectifier regulator box. 3. Insulation resistance test. 4. High voltage test 5. Load test 6. Mechanical over speed and induced voltage test. 7. Drooping voltage characteristics test. 8. Current limiting characteristics test. 9. Surge protection test. 10. Measurement of stator and field resistance. 11. Water tightness test for rectifier – regulator.	the	
8.2	Routine Tests: All tests other than those indicated at serial nos. 2, 7 and 9 of type t	vendor to confirm	
	mentioned above shall be carried out.		
8.3	Acceptance Process for development order:		

8.3.1	The offer received will be technically scrutinized as per specification. Clarifications will be obtained from vendor, if required.	vendor to confirm	
8.3.2	Technical accepted proposal will be submitted to railways for their in principle approval for development.	vendor to confirm	
8.3.3	Type testing of Auxiliary Alternator and RRU shall be conducted by Railway and/or BHEL at vendor's premises. In case Auxiliary Alternator and RRU is already type tested, report and approval shall be submitted to Railway's for their in principle approval.	vendor to confirm	
8.3.4	Auxiliary Alternator and RRU after duly tested and approved by Railway will be fitted in DETC as stipulated by Railway for field trial.	vendor to confirm	
8.3.5	After successful field trials vendor may be considered for bulk order in future tenders.	vendor to confirm	
9.0	APPROVALS FOR DESPATCH CLEARANCE:		
9.1	Material shall be dispatched only after dispatch clearance from BHEL.	vendor to confirm	
10.0	MARKING		
10.1	Following particulars shall be provided at name plate: 1. Name of Vendors 2. Year of Manufacturing 3. Serial number 4. Normal and overload voltage, current and power rating.	vendor to confirm	
11.0	DOCUMENTATIONS		
	Following documents required to be supplied along with Alternator: 1. Operation and maintenance manual 2. OGA drawings in Autocad /editable format. 3. Spares parts catalogue 4. Any other documents required by Railway	vendor to confirm	

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12.0	TRAINING:		
12.1	Vendor shall arrange to provide training in working, operation & maintenance at their manufacturing works to Railways. The charges for travel, boarding and lodging shall be borne by the Railways.		
13.0	SPARES:		
13.1	Supplier shall offer list of unit exchange spares, mandatory, maintenance and consumable spares each separately.	vendor to confirm	
14.0	WARRANTY/GUARANTEE:		
14.1	The Manufacturer/supplier shall, at his expense, replace any part of the equipment failing or proving unsatisfactory in service and attributed to defective/faulty design, defective material or bad workmanship within a period of 30 months from date of supply of the equipment as a set dully inspected at railway production unit. The period of warranty shall stand extended by the duration for which the device inoperative under exercise of this clause. Further, should any design modification be made in the equipment as a defect /fault/shortcoming in the original design, the period of warranty would commence from the date of the modified part is commissioned into service. INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS:		
15.1	UNDERTAKING BY EQUIPMENT MANUFACTURE: All respondents shall provide a signed copy of the undertaking on "INFRINGEMENT OF PATENT RIGHTS". The undertaking shall be as under: rights arising due to similarity in design, manufacturing process, use of similar components in the design & development of this item and any other factor not mentioned herein which may cause such a dispute. The entire responsibility to settle any such disputes/ matters lies with the		

	OEM/supplier. Details/ design/documents given by them are not infringing any IPR and responsible in absolute and full measure instead of railways for any such violations. Data, specifications and other IP as generated out of interaction with railways shall not be unilaterally used without the consent of RDSO and right of Railways/RDSO on such IP is acceptable to them. Indian Railways shall not be responsible for infringement of patent.						
15.2	, A				vendor to confirm		
16.0		maintenance and a	1				
16.1		1					
	S.No	Revision No	Date	Reason for Revision			
	1.	01	Sept'18	Technical details modified.			
	2.	02	March'19	Technical details modified. Qualification criteria modified. Acceptance process added			

3.	03	June'20	Qualification criteria		
			modified		
4.	04	Sep'20	Qualification criteria modified		
5.	05	Dec'23	Cl no 3.1 i) added & Change in warranty terms.		

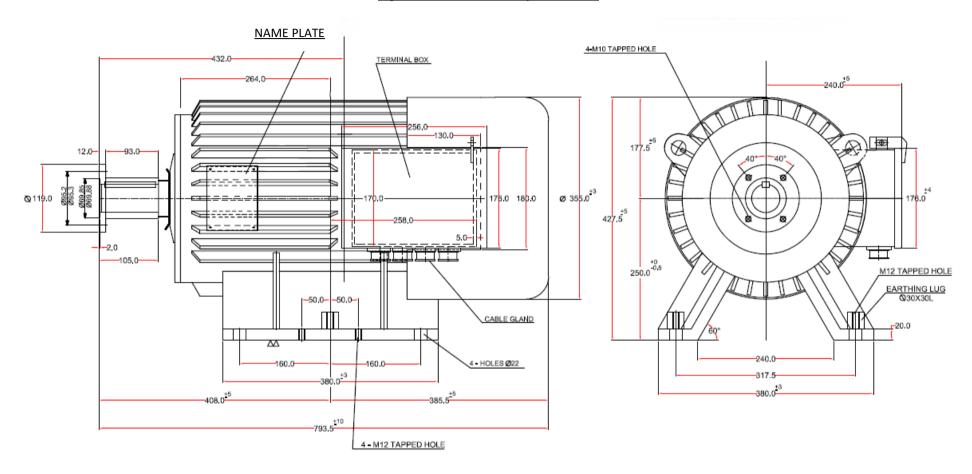


Fig 1: Outline of Auxiliary Alternator

76.0 130,0 Ø 50 CONDUIT AC IN PUT DC OUT PUT NAME PLATE FIXING PLATE 6-HOLES Ø11 576.0 (COVER) 552.0⁺⁵ 130.0 441,0 (CCVER) 325.0^{±3} 130.0 23,0 VENT HOLES FOR HEAT DISSIPATION

Fig 2: Outline of RR Unit