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**Expression of Interest (EOI) for
identification of Gearbox manufacturers for
Traction Application**

Traction Machines Engg. Division

Ref: TME/EOI/2020-21/02

Date: 12/09/2020

**EXPRESSION OF INTEREST (EOI) FOR IDENTIFICATION OF GEARBOX
MANUFACTURERS FOR TRACTION APPLICATION**

Dear Sir,

BHEL invites Expression of Interest (EOI) from reputed **gearbox original equipment manufacturers (OEMs)**, supplying gearbox for traction application.

The annual expected requirement of the gearbox in near future is approx. 200-500 nos.

The interested vendors may submit their application as per Annexure-A, compliance of technical PQR and supporting documents through email within 30 days of the EOI publication date. Technical Pre-Qualification requirement (PQR) criteria for "Gearbox manufacturers for Traction application" is attached as Annexure-B

Interested vendors may submit above-mentioned documents to following BHEL Bhopal representative through email:

Anurag Sharma
Manager/ TME
BHEL Bhopal
Piplani-462021 (MP), India

Ph.: +91-755-250-2021, 2382

Email: 1) a_sharma@bhel.in
2) m.verma@bhel.in



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ANNEXURE A

Information to be submitted by vendor along with offer

1. Name of the Company:
2. Legal status of the Company:
3. Brief description of the Company including details of its business groups/subsidiaries/affiliates:
4. Date of Incorporation:
5. Date of Commencement of Business:
6. Full address including Telephone nos. / Fax nos.:

Registered Office:

Head Office:

Address for communication:

Contact Details:

Office Address in India, if any:

7. Documents to be enclosed:
 - a) Technical Credentials – Relevant Product/System catalogues, Experience /Reference List, Copies of Customer Certificates, Engineering strengths, quality accreditations, etc.
 - b) Financial Credentials – Copies of Audited Financial statements (Annual Reports) for last 3 years, Credit Rating, Market share (Domestic/International), Segmental Revenue in the applied category (ies).
 - c) Documents required as per Pre-Qualification requirement (PQR)

(Sign & Company Seal)
Authorized signatory



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ANNEXURE B

**Vendor to comply following technical requirements and provide necessary
documents for consideration of its offer:**

Cl. No.	Description	Vendor to comment	
		Complied / Not complied	Supporting relevant document to be submitted
1.	Vendor to confirm that it is an OEM of Gearbox for fully suspended traction motor.	Yes/No	Not Required
2.	Vendor to confirm that it has executed at least 1 project in the last 2 years (from the EOI date) in which gearbox is designed & manufactured by vendor for fully suspended traction motors having operational speed of 160 kmph or above.	Yes/No	a. Application for which gearbox is designed & manufactured. b. Maximum Operational speed of designed gearbox c. PO copy (if required price details may be hidden). d. OGA drawing. e. Supply proof i.e. invoice (if required price details may be hidden).
3.	Vendor to furnish the place of manufacturing plant where gearbox has been manufactured and supplied, for which details are given against clause 2.	-	Name of place of manufacturing plant
4.	Vendor to confirm that it has own design, manufacturing and testing capabilities for Gearboxes for fully suspended traction motors having operational speeds of 160 kmph or above.	Yes/No	Not Required
5.	Vendor to confirm that the it can carry out following activities for development of gearbox:		Not Required
	a. Strength calculation for gear & pinion.	Yes/No	
	b. Selection of flexible coupling.	Yes/No	
	c. Finite element analysis (FEA) which includes stress analysis, fatigue analysis, modal analysis and harmonic analysis of complete gearbox assembly.	Yes/No	
	d. Selection of bearings, L-10 life calculation of bearings and FEA of bearing cage.	Yes/No	



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Cl. No.	Description	Vendor to comment	
		Complied / Not complied	Supporting relevant document to be submitted
5.	a. Provide special tools, gauges and fixtures for fitment of gearbox assembly on axle, motor and bogie.	Yes/No	Not Required
	b. Provide procedure for fitment of gearbox assembly on axle, motor and bogie.	Yes/No	
	c. Complete type testing of Gearbox including test for waterproofing test.	Yes/No	
	d. Depute technical representative to BHEL Bhopal for witness of waterproof test by customer (RDSO Lucknow, India).	Yes/No	
	e. Depute technical representative to RDSO Lucknow, India for design approval of gearbox assembly.	Yes/No	
	f. Depute technical representative to BHEL Bhopal, India and Indian Railway manufacturing units at Chennai, India/Kapurthala, India or any other Indian Railway manufacturing units to provide assistance by way of supervision/training for complete installation of prototype 8 nos. gearbox assembly on axle, bogie & motor.	Yes/No	
	g. Provide maintenance manual for maintenance & operation of gearbox in service.	Yes/No	
6.	Vendor to confirm that it is not banned / blacklisted by RDSO Lucknow or any entity of Indian Railways for business dealings.	Yes/No	Not Required

(Seal and sign of Supplier's representative)