

Expression of Interest
Conversion of HHP Diesel Locomotives to Electrical Locomotives

Indian Railways
Banaras locomotive Works
Varanasi

INSTRUCTIONS / GUIDELINES FOR THE FIRMS EXPRESSING THEIR INTEREST AGAINST EXPRESSION OF INTEREST (EOI) FOR CONVERSION OF HHP DIESEL LOCOMOTIVES TO ELECTRIC LOCOMOTIVES AVAILABLE ON INDIAN RAILWAYS

1. DISCLAIMER:

Ministry of Railways, Banaras Locomotive Works (BLW), Design & Development Office has prepared this document to give interested parties background information of the product/ system. While this office has taken due care in preparation of information contained herein and believes it to be accurate, neither BLW nor any of its officers, employees gives any assurance or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it. The information is not intended to be exhaustive. Interested parties are required to make their own inquiries and respondents will be required to confirm in writing that they have done so. The information is provided on the basis that it is non-binding on BLW or any of its officers, employees or advisors. BLW reserves the right not to proceed with the project, at a later stage or to change the process or procedure to take the project forward. In such eventualities, BLW will not be held responsible. It also reserves the right to decline to discuss the project further with any party expressing interest. No reimbursement of cost of any type will be paid to persons, or entities, expressing interest.

2. PURPOSE OF INVITING THE EOI

The present EOI is being invited to identify experienced firms for the purpose of interacting with them in the process of development of **Scheme** for **CONVERSION OF HHP DIESEL LOCOMOTIVES TO ELECTRIC LOCOMOTIVES**. To facilitate the potential respondents, a preliminary data of locomotives proposed to be converted has been drawn up by this office and interested firms can view the same in Annexure-C.

3. OPTIONS & TERMS FOR EOI:

As on 01.06.2021, there are 2459 HHP diesel locos with IR. The age profile of these diesel locomotives is given in Table 1.

Table -1

Age Group	HHP Locomotives
0 - 5	713
5 - 10	1244
10- 15	422
15 - 20	77
20 - 25	3
25 - 30	0
30 - 35	0
Grand Total	2459

Option 1.

3.1 Conversion of HHP diesel locomotives into electric locomotives by Contractor:

The cost of conversion of HHP diesel locomotive to electric locomotive will be borne by the IR and the new type of electric locomotive will be handed over by the Contractor after testing & commissioning.

3.1.1 Contractor's scope of work:

- (i) The scope of supply of contractor shall include design, manufacture, supply, integration, testing of the converted electric locomotive from HHP diesel locomotives.
- (ii) The Contractor shall be responsible for the availability of qualified testing and technical support in the complete testing and trials of the locomotive. Integration & testing of additional equipment with the locomotive shall be under Contractor's scope of work.

3.1.2 IR's scope of work:

- (i) All issues related with operation and maintenance of new type of electric locomotives will be managed by IR.
- (ii) The required electrified track facility and required loads for the type testing including performance testing and oscillation trials for the complete locomotive shall be provided by Indian Railways.
- (iii) The testing of new type of locomotives shall be done as per Acceptance test scheme specified by Research, Design & Standards Organization (RDSO).
- (iv) IR will need to define the desired speed post conversion in the prototype and set the timelines between award of contract and clearance by various entities such as RDSO etc.

Option 2.

3.2 Conversion of HHP diesel locomotives into electric locomotives under PPP model:

Diesel locomotives are proposed to be sold off to the PPP Partner (Contractor) who will then convert HHP diesel locomotives into electric locomotives and offer the services of Converted HHP locomotives to IR on rental/lease charges for a specified period. After the specified period of use is over, the contractor shall have an option to sell the converted HHP diesel locomotive to Ministry of Railways. Some of the diesel locomotives are on lease from the Indian Railway Finance Corporation Ltd (IRFC). For such locomotives, the contractor shall have to pay the current depreciated cost to IRFC.

3.2.1 The details of conversion scheme under proposed Option 2:

- (i) The Contractor will buy the existing locomotive from Indian Railways at a certain price
- (ii) The scope of supply of contractor shall include design, manufacture, supply, integration, testing of the converted electric locomotive from diesel locomotives.
- (iii) The diesel locomotive will be converted into electric loco at a facility chosen by contractor.
- (iv) The contractor shall be responsible for the availability of qualified testing and technical support in the complete testing and trials of the locomotive. Integration & testing of additional equipment with the locomotive shall be under Contractor's scope of work.

- (v) The Maintenance of complete locomotive for specified period (i.e.re-determined life of the converted locomotive) will be by the contractor at designated sheds provided by Indian Railways.
- (vi) In the designated shed, the basic infrastructure and machinery required for complete maintenance of locomotive will be provided by Indian Railways.
- (vii) The manpower of Indian Railways can be used at a mutually agreed manpower cost to be borne by the contractor.
- (viii) IR shall only be liable to pay monthly rental for the converted locomotives for the specified period of use.
- (ix) IR shall have option to use the locomotive for further specified period at mutually agreed costs.

3.2.2 IR's scope of work in proposed PPP model:

- (i) The required electrified track facility and required loads for the type testing including performance testing and oscillation trials for the complete locomotive shall be provided by Indian Railways.
- (ii) The testing of new type of locomotives shall be done as per Acceptance test scheme specified by RDSO.
- (iii) IR will need to define the desired speed post conversion in the prototype and set the timelines between award of contract and clearance by various entities such as RDSO etc. Besides, per unit hire/lease charge needs to be determined.
- (iv) IRFC to be consulted for locomotives on lease from them since diesel locomotives are contemplated to be sold.

3.2.3 PPP Partner's (Contractor's) scope of work in proposed PPP model:

- (i) The scope of supply of contractor shall include design, manufacture, supply, integration, testing of the converted electric locomotive from diesel locomotives.
- (ii) The Contractor shall be responsible for the availability of qualified testing and technical support in the complete testing and trials of the locomotive. Integration & testing of additional equipment with the locomotive shall be under Contractor's scope of work.
- (iii) Contractor will perform maintenance of Locomotives in accordance with the revised and re-determined life of the converted locomotives.

3.2.4 Outcome of conversion under PPP model:

- (i) The Cost of conversion applicable to the contractor will include recurring cost, O&M cost, cost of sale, cost of redesigning, etc.
- (ii) Contractor shall be liable for ensuring upkeep & guaranteed availability of new type of electric locomotives.
- (iii) IR shall only be liable to pay monthly rental for the converted locomotives for the specified period of use, the unit of which needs to be defined.

Option 3:

3.3 Conversion of HHP diesel locomotives into electric locomotives under PPP model:

The diesel locomotives are proposed to be handed over to PPP partner (contractor) against the requisite security deposit, who shall, in turn, convert the HHP diesel locomotives into electric locomotives and offer their services to IR on rental/lease charges for a specified period, after which the electric locomotives will be handed over back to IR. In this model, the sale of diesel locomotives is not involved and after completion of specified period of use, the converted electric locomotive will be handed over back to IR.

3.3.1 The details of conversion scheme under proposed option 3:

- i) The diesel locomotive will be handed over to the contractor against requisite security deposit.
- ii) The scope of supply of contractor shall include design, manufacture, supply, integration, testing of the converted electric locomotives from diesel locomotives.
- iii) The diesel locomotive will be converted into electric loco at a facility chosen by contractor.
- iv) The contractor shall be responsible for the availability of qualified testing and technical support in the complete testing and trials of the locomotive. Integration & testing of additional equipment with the locomotive shall be under Contractor's scope of work.
- v) The Maintenance of complete locomotive for specified period (i.e.re-determined life of the converted locomotive) will be by the contractor at designated sheds provided by Indian Railways.
- vi) In the designated shed, the basic infrastructure and machinery required for complete maintenance of locomotive will be provided by Indian Railways.
- vii) The manpower of Indian Railways can be used at a mutually agreed manpower cost to be borne by the contractor.
- viii) IR shall only be liable to pay monthly rental for the converted locomotives for the specified period of use.
- ix) IR shall have option to use the locomotive for further specified period at mutually agreed costs

3.3.2 IR's scope of work in proposed PPP model:

- i) The required electrified track facility and required loads for the type testing including performance testing and oscillation trials for the complete locomotive shall be provided by Indian Railways.
- ii) The testing of new type of locomotives shall be done as per Acceptance test scheme specified by RDSO.
- iii) IR will need to define the desired speed post conversion in the prototype and set the timelines between award of contract and clearance by various entities such as RDSO etc. Besides, per unit hire/lease charge needs to be determined.

3.3.3 PPP Partner's (Contractor's) scope of work in proposed PPP model:

- i) The scope of supply of contractor shall include design, manufacture, supply, integration, testing of the converted electric locomotive from diesel locomotives.
- ii) The Contractor shall be responsible for the availability of qualified testing and technical support in the complete testing and trials of the locomotive. Integration & testing of additional equipment with the locomotive shall be under Contractor's scope of work.
- iii) Contractor will perform maintenance of Locomotives in accordance with the revised and re-determined life of the converted locomotives.

3.3.4 Outcome of conversion under PPP model:

- i) The Cost of conversion applicable to the contractor will include recurring cost, O&M cost, security deposit charges, cost of redesigning, etc.
- ii) Contractor shall be liable for ensuring upkeep & guaranteed availability of new type of electric locomotives.
- iii) IR shall only be liable to pay monthly rental for the converted locomotives for the specified period of use, the unit of which needs to be defined.

Option 4:

3.4 Besides the above, willing contractors/PPP partners are also invited to suggest any other model for conversion.

4. METHOD OF SHORTLISTING OF FIRMS:

The qualifying criterion for short-listing of firms is defined in Annexure- D. The eligible respondents of the EOI (as per the qualifying criteria of EOI) will be selected for further interaction.

5. List of Annexure:

Annexure "A": Format for "LETTER OF RESPONSE"

Annexure "B" : Format for "UNDERTAKING"

Annexure "C" : Locomotive Data

Annexure "D": Qualifying criteria for short-listing of the firms

6. SUBMISSION OF EOI BY INTERESTED FIRMS

Interested firms are requested to submit their response against the options mentioned above in the prescribed "Format for Letter of Response" given in Annexure-A within 60 days from the date of publication of this EOI.

Response may be sent to Dy.CDE/Vehicle, Design & Development Office, BLW, Varanasi- 221004, UP (India)

Contact Details for any Assistance:

Dy.CDE/Vehicle, BLW

Telephone No, 0542-2642506

0542-2642536

Email:dycdeveh@dlw.railnet.gov.in

7. INSTRUCTION TO APPLICANTS:

7.1 For determining the eligibility of Applicants for their assessment hereunder, the following shall apply:

The Applicant for assessment under the EOI may be (i) a single entity; or (ii) a Group of Entities ("GOE") coming together to meet the scope of the EOI. The GOE shall elect one of their members as the lead member of the GOE. The term Applicant used herein would apply to both a single entity and the GOE. The lead member of the GOE would be responsible to BLW for the entire scope of work and shall ensure back to back tie ups with other members of the GOE.

In case the Applicant is a GOE, it shall comply with the following requirements;

- i) The Application should include a brief description of the roles and responsibilities of individual members of the GOE including that for technical, financial and other obligations.
- ii) An individual Applicant cannot at the same time be member of a GOE applying for assessment. Further, a member of a particular GOE cannot be member of any other GOE applying for assessment.

8. Right to accept or reject any or all Applications:

8.1 Notwithstanding anything contained in this EOI, BLW reserves the right to accept or reject any Application and to annul the EOI Process and reject all Applications, any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore. In the event that BLW rejects or annuls all the Applications, it may, at its discretion, invite all eligible applicants to submit fresh Applications.

8.2 BLW reserves the right to disqualify any Applicant during or after completion of EOI process, if it is found there was a material misrepresentation by any such Applicant or the Applicant fails to provide, within the specified time, supplementary information sought by BLW.

8.3 BLW reserves the right to verify all statements, information and documents submitted by the Applicant in response to the EOI. Any such verification or lack of such verification by BLW shall not relieve the Applicant of this obligations or liabilities hereunder nor will it affect any rights of BLW.

9. Documents to be submitted with EOI:

- i) Letter comprising the Application as per format enclosed at Annexure A&B along with information and data required as per Attachments and supporting documents thereof.
- ii) Copy of Articles Memorandum of Association or partnership deed;
- iii) Copies of Applicant's duly audited balance sheets and profit and loss accounts for the preceding year (or all Members in case of a GOE).

10. Miscellaneous:

The EOI process shall be governed by, and construed in accordance with, the laws of India and the Courts at Varanasi shall have exclusive jurisdiction over all disputes arising under, pursuant to and / or in connection with the EOI process.

FORMAT FOR LETTER OF RESPONSE

Respondents Ref No.:

Date:

Dy.CDE/Vehicle,
Design & Development Office,
Banaras Locomotive Works
Ministry of Railways,
Varanasi
U.P. - 221004, INDIA.

Dear Sir,

Subject: RESPONSE TO - EOI FOR PARTICIPATION

1 .We, the undersigned, offer the following information in response to the Expression of Interest sought by you vide your Notification No. _____, dated _____

2. We are duly authorized to represent and act on behalf of _____(hereinafter the "respondent")

3. We have examined and have no reservations to the EOI Document including Addenda No(s)

4.We are attaching with this letter, following information under company seal: -

4.1 the Respondent's legal status;

4.2 its principal place of business;

4.3 its place of incorporation (if respondents are corporations); or its place of registration (if respondents are cooperative institutions, partnerships or individually owned firms);

4.4 Self-certified financial statements of Last three years, clearly indicating the financial turn over and net worth.

4.5 Copies of any market research, business studies, feasibility reports and the like sponsored by the respondent, relevant to the project under consideration

5. We shall assist MOR and/or its authorized representatives to obtain further clarification from us, if needed.

6. BLW and/or its authorized representatives may contact the following nodal persons for further information on any aspects of the Response:

SN	Contact Name	Address	Telephone	E Mail
1				
2				

7. This application is made in the full understanding that:

7.1 Information furnished in response to EOI may be used confidentially by BLW for the purpose of development of the product.

7.2 BLW reserves the right to reject or accept any or all applications, cancel the EOI and subsequent process without any obligation to inform the respondent about the grounds of same.

7.3 We confirm that we are interested in participating in development of the product.

8. We certify that our turnover and net worth in the last three years is as under:

Financial Year	Turn over	Net worth

9. In response to the EOI we hereby submit the following additional details annexed to this application:

9.1 Details of various items being manufactured/consultancy undertaken.

9.2 Details of customer(s) and supplies made in the field of item under EOI.

9.3 Experience and expertise for the items proposed in EOI.

9.4 Details of man-power with their qualification and experience.

9.5 Detailed proposal for items proposed in EOI including alternative proposal, if any.

9.6 Details of Intellectual Property Rights (IPR) held, patent filed/held and MOU/agreement signed.

9.7 Details of ISO certification.

9.8 Undertaking as per Annexure-B

10. The undersigned declare that the statements made and the information provided in the duly completed application are complete, true, and correct in every detail. We also understand that in the event of any information furnished by us being found later on to be incorrect or any material information having been suppressed, BLW may delete our name from the list of qualified Respondents. We further understand that BLW will give first preference to the applicants considered relevant for the purpose.

11. Our response is valid till (date in figures and words): _____

Yours sincerely,

(Sign)

Name

In the Capacity of Duly authorized to sign the response for and on behalf of

Date

(To be taken on non-judicial stamp paper of appropriate value as applicable in the respective state and duly notarised and witnessed)

UNDERTAKING

I, son of aged about Years resident of do hereby solemnly affirm as under:

1. That the deponent is the Authorised signatory of *(Name of the Sole Proprietorship Concern/Partnership Firm/ Registered Company/ Joint Venture)*.
2. That the deponent declares on behalf of *(Name of the Sole Proprietorship Concern/ Partnership Firm/ Registered Company/Joint Venture)* that:
 - a) In regard to matters relating to the security and integrity of the country, no charge sheet has been filed by an agency of the Government and/or conviction awarded by a Court of Law for an offence committed by the *(name of the entity)* or by any sister concern of the*(name of the entity)* which would constitute disqualification of.....*(name of the entity or any of it's sister concerns)*.
 - b) In regard to matters other than the security and integrity of the country, *(name of the entity)* has not been convicted by a Court of Law or indicted / passed any adverse order by a regulatory authority against it or it's any sister concern which relates to a grave offence, or would constitute disqualification. Grave offence is defined to be of such a nature that it outrages the moral sense of the community.

DEPONENT

VERIFICATION

I declare that the contents of para 1 to 2 above are true as per my knowledge and nothing has been hidden.

DEPONENT

Locomotive Data:

Type of Locos/Item	WDP4	WDG4	WDP4B	WDG4D	WDP4D	WDG5
Power (HP)	4000	4000/4500	4500	4500	4500	5500
Gauge	BG	BG	BG	BG	BG	BG
Loco Wt	117 t	126 t	121.2 t	130 t	123 t	134 t
Axle Wt	19.5 t	21 t	20.2 t	21.7 t	20.5 t	22.3 t
No of Axle	6	6	6	6	6	6
Bogie Configuration	A-A-I I-A-A	CO-CO	CO-CO	CO-CO	CO-CO	CO-CO
No. of TM	4	6	6	6	6	6
Type of Couplers	E-TYPE, HIGH TENSILE TRANSITION	E-TYPE, HIGH TENSILE TRANSITION	H-TYPE, HIGH TENSILE TIGHT LOCK TRANSI- -TION	E-TYPE, HIGH TENSILE TRANSI TION	H-TYPE, HIGH TENSILE TIGHT LOCK TRANSI- -TION	E-TYPE, HIGH TENSILE TRANSI- -TION
Wheel Dia. (mm)	1092	1092	1092	1092	1092	1092
Max Height (mm)	4201	4201	4201	4201	4201	4381
TE (Starting)-KN	270	540	400	540	400	560
Cab Arrgt	Single Cab	Single Cab	Single Cab	Double Cab	Double Cab	Single
Propulsion System	GTO & IGBT	GTO & IGBT	IGBT	IGBT	IGBT	IGBT
Gear Ratio	77:17	90:17	77:17	90:17	77:17	91:20

Qualifying criteria for short-listing of the firms

1. Railway Rolling Stock manufacturers / rebuilders or their subsidiaries having turnover of at least 500 Cr. INR to Railways worldwide in past ten financial years including current financial year.

OR

Railway Rolling Stock Shell OR Propulsion equipment manufacturers or their subsidiaries having supplied at least 500 Cr. INR worth of equipment to Railways worldwide in past Ten financial years including current financial year. Propulsion Equipments include Traction Converter and Auxiliary Converters.

2. Compliant with Ministry of Finance, Dept. of Expenditure, Public Procurement Division, Office Memorandum vide F.No. 6/18/2019-PPD of dt 23.07.2020 regarding "Restrictions on Public Procurement from certain countries"