

EXPRESSION OF INTEREST

EOI Notice no.: HQ/MECH/PWB/EOI/2021

Sub: Invitation of “Expression of Interest” for the purpose of exploring likely sources of Pre Weigh bin system with mechanized loading on DFC sidings

Ministry of Railways has launched its flagship project, the Dedicated Freight Corridor (DFCs) for construction of approximately 3300 kms of electrified and high axle load track. The track is fit for running high capacity wagons and longhaul freight trains at maximum speed of 100 km/hr. The corridor is between JNPT/ Mumbai and Dadri (Western Corridor) and Dankuni to Ludhiana (Eastern Corridor).

Purpose of EOI: The purpose of invitation of this EOI is to explore likely sources and solutions/technology available of Pre Weigh bin system with mechanized loading for use at DFC sidings/ loading points. The suppliers shall be required to provide pre weigh bin and mechanized loading as a service. The respondents are expected to submit their application with details of solutions/technology being offered by them.

1. Introduction

1.1 Pre weigh bin is a mobile electronic system through which commodities (bagged or otherwise) are weighed prior to being loaded in the wagons. The loading is also expected to be mechanised. The system should be capable of being set up and ready for use within 30 minutes at the site.

2. Functional requirements & definitions

2.1 System operation shall be through Auto mode i.e. automatic calculation of payload and filling the same amount without any manual assistance (only swing chute operation may be done manually while taking up the next wagon in order).

2.2 One-to-one correspondence between Pre weigh bin discharge and corresponding wagon must be available.

2.3 Pre Weigh bin system capacity: Pre Weigh bin capacity should be fixed by Mutual Agreement among OEM & User in consultation with DFC on the basis of available wagon carrying capacity.

2.4 Wagon loadability: It shall be possible to load all wagons running on Indian Railways.

2.5 Bi-directional loading: The loading shall be possible from both direction of movement of train.

2.6 Mixed rake loading: It should be possible to load a mixed rake (combination of different type of rolling stock) consisting of empty wagons.

2.7 Working environment: The system supplied should be rugged to work satisfactorily in all weather conditions. Electrical/Instrumentation should be placed in cabin with proper temperature and dust control. Moreover, full system must be moisture and dust proof.

2.8 Accidental maladjustment: Instruments shall be constructed so that maladjustment's likely to disturb metrological performance cannot normally take

place without the effect being detected.

2.9 Tamper Proof: Full system should have the arrangement to prevent it being tampered by unauthorized persons. The system should have proper locking/sealing arrangement to avoid any tampering with the system including software. The system should provide for automatic logging of all changes being made to the system either at the stage of calibration or during operation with complete record of the user details, location/IP addresses from where changes have been made and the details of the changes made.

2.9.1 During calibration, computer/laptop/any remote means must be disconnected and logic must not be implemented in computer system and weighing electronics must work independently without PC which will avoid weight manipulation in computer system.

2.9.2 Calibration and adjustment of weight to be through hardware switch, soft key or key board linked with control console which shall be disabled through hardware jumper /dip switch in the electronics card which should not be accessible after sealing of control console.

2.9.3 Control console shall have Display facility to view calibration value, calibration date & time, which can be verified any time without any need of system interaction.

2.10 **Specific requirements:** These shall comprise of weighing system electronics (control console), processing and printing equipment and any other equipment required for satisfactory performance of the system. The technical terms used in this document largely draw reference from the Metrological Rules in vogue in India.

2.10.1 Technical requirements/ Weighing system electronics

2.10.1.1 It shall consist of control console and a computer system.

2.10.1.2 A suitable input device shall be provided for inputting the data from time to time.

2.10.1.3 A visual display unit shall be provided for monitoring the contents and results visually.

2.10.1.4 Suitable heavy duty printer shall be provided for getting a hard copy of the weight of the loaded quantity in individual wagon and total train.

2.10.1.5 Suitable fault finding software routines for display of major faults occurring in the system shall be provided. Suitable LED panel/Message display should be provided on the control console/PC monitor, each LED/message indicating a specific fault and LED/message should light up indicating the type of fault for diagnostics.

2.10.1.6 Auto Zero function for eliminating zero error resulting from drift shall be provided after each and every operation. Auto calibration of the system after each and every weighment cycle shall be provided for error free weighment.

2.10.1.7 A system shall be provided to facilitate uninterrupted backup for electronic weighing indication system and computer system for minimum three hour in case of power failure.

2.10.1.8 The control panel shall have suitable means for memory protection

in case of power failures.

2.10.1.9 The pre-weigh bin owner/manufacturer shall be required to maintain spare part hub in its premises from where they can promptly rush spares to service the defective system.

2.10.2 Software requirements

2.10.2.1 Software should be on Windows platform and should have adequate protections of dongle/ adapter on parallel port.

2.10.2.2 The weigh bin computer system and software shall have FOIS (Freight Operations Information System) functionality. The integration of this system with FOIS for seamless data transfer without human intervention is an essential requirement for this system. Its integration with FOIS needs to be validated jointly by the OEM and DFC. The computer system and software should be able to receive & transfer text based/other specified files/data in encrypted mode over FOIS network and to FOIS server. The weigh bin manufacturer shall enable the weigh bin software to transmit the weighment data in the prescribed syntax, sequence and format with the prescribed encryption, against the data transfer protocol specified. The testing of the system would need to be done on the development server of CRIS and for this purpose, suitable APIs and other software requirements would need to be disclosed by the OEM to DFC for facilitating the testing.

2.10.2.3 During FOIS link failure; the weighment should be possible but the weighment data shall be saved in encrypted mode which shall not have the options like View/ Edit/ Erase/ Delete/ Print/Share rake weighment data (To rule-out any manual intervention in weighment data). After the FOIS link is restored, the saved data shall be transmitted first on the FOIS automatically then later the same should be visible/ retrievable.

2.10.2.4 While in weighing mode, screen should show the number of wagons, its tare weight, fill weight, gross weight and its sequence number. Date and time should be taken from the system itself.

2.10.2.5 It should not be possible to edit the net weights. In the weighment software, there should not be any import/export option to any other software and there should not be any options like Delete/Edit/Erase rake weighment data.

2.10.2.6 It should be possible to store the information of one rake weighing into a separate file, which can be retrieved and printed at a later date. Such stored information should be complete with original date and time and it should not be possible to edit such file.

2.10.2.7 The operating software should have in-built security so that no unauthorized person can alter/ interfere with the system to ensure reliability of weighment. The system should have adequate capacity to store the record of about 100 rakes weighed without having to delete/off load for storage. These records will be normally preserved for about 12 months and the system should not permit

any alteration of records after the weighment is completed.

3. **Eligibility criteria**

- 3.1 The pre weigh bin supplier shall be required to necessarily possess all requisite clearances and approvals from the Metrological department, Government of India for the model of the Pre weigh bin system with mechanized loading being offered.
- 3.2 The respondent should have adequate technical capabilities to provide automatic pre weigh bin with automatic loading system as a service.

4. **Metrological requirements**

- 4.1 The metrological requirements for Pre Weighbin system shall meet the provisions given in the Seventh schedule of Gazette of India for Legal metrology. The provisions contained in the Seventh schedule of the Legal metrology gazette shall be applicable as amended or modified from time to time.
- 4.2 Accuracy class of pre weigh bin systems: It shall meet the requirement of accuracy class-X (1) as per Heading-D, Seventh Schedule of Legal Metrology General Rules 2011 with latest amendment.
- 4.3 **Calibration of the pre weighbin system:** The equipment shall be certified by Weights and Measures Department, and should also meet all extant statutory provisions and policy guidelines. Calibration of the pre weighbin system shall be conducted as per the provisions given in the VII schedule of the legal metrology gazette. The firm/owner shall arrange for calibration, testing and certification of the Pre weighbin as per terms & conditions of service contract in presence of legal metrology representative and concerned DFCCIL representative.

5. **Service Level Agreement:** Service Level Agreement will be intimated at the tendering stage.

6. **Invitation for EOI**

- 6.1 DFC reserves the right to call for submission of additional documents or any specific document, etc. required to be submitted in reference to the purpose of this EOI.
- 6.2 DFC reserves the right to use information received in the replies to EOI for further development of the project. Mere fact of responding to the EOI, however, shall not confer any right on the parties to preferential treatment at the subsequent bid/development stage.
- 6.3 All costs incurred by respondents in connection with the EOI shall be borne by respondents themselves.
- 6.4 DFC reserves the right to cross check and confirm the information/details furnished by the respondents in response to this EOI.
- 6.5 All the information submitted by the party through EOI will be kept as strictly confidential by DFC and will not be shared with any other party.

7. **How to respond**

- 7.1 Applicants are requested to submit their EOI within the stipulated time. Any late submission will not be entertained. The response to the EOI shall be submitted online through **e mail (vgautam@dfcc.co.in) as well as in hard copy by courier/speed post**

before the last submission date and time (14.10.2021,15.00 hr) to General Manager (Mechanical), Dedicated Freight Corridor Corporation of India Ltd. 5th Floor, Supreme Court Metro Station Building Complex, New Delhi – 110001.

7.2 The response to the EOI shall be submitted online before the last submission date and time. Applicants are requested to submit their EOI in advance and failure of last hour entry will not be entertained.

7.3 The EOI should be submitted in the format given at **Annexure A**.

7.4 The language for submission of document shall be English.

8 **Respondent's Responsibility:** It is expressed that before submitting the EOI, the respondent or applicant must have carefully examined the contents of all the documents. Any failure to comply to do so will be at the respondent's risk.

9 **Amendment:** DFC may modify the EOI by issuing an addendum before last date of submission of the Application. Any addendum thus issued shall be part of EOI and shall be posted on the website. To give respondents reasonable time in which to take addendum into account in preparing their Applications, DFC may extend the last date of submission of response.

10 **Governing law:** The governing law for the purpose of the process is the laws of India and courts of New Delhi shall have full jurisdiction considering any matter arising out of this EOI and the process.

11 **Compliance to relevant Govt. of India guidelines/policy on Make in India:** Guidelines issued from Govt. of India regarding Make in India would be followed during scrutiny of the responses.

12 **Business dealing with neighbouring countries:** While scrutiny of the responses, various guidelines issued from Ministry of Finance under Subject: Restrictions under Rule 144 (xi) of the General Finance Rules (GFRs) 2017 on "Business dealing with neighbouring countries" would be adhered to.

FORMAT FOR LETTER OF RESPONSE

Respondents Ref No.:

Date:

Group General Manager (Mech)
 Dedicated Freight Corridor Corporation of India Ltd.
 5th Floor, Supreme Court Metro Station Building Complex,
 New Delhi - 110001

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, the copies of documents defining:
 - 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.
- 5 We shall assist and/or its authorized representatives to obtain further clarification from us, if needed.
 - 5.1 DFC and/or its authorized representatives may contact the following nodal persons for further information on any aspects of the Response:

S. No.	Contact Name	Address	Telephone	E Mail
1				
2				

- 5.2 Plant Location:
- 5.3 Manufacturing Capacity per Annum:
- 5.4 Resources : Man power deployed:
- 6 This application is made in the full understanding that:

6.1 Information furnished in response to EOI shall be used confidentially by DFC or the purpose of development of the project.

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

6.3 We confirm that we are interested in participating in development of the project.

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

FINANCIAL YEAR	TURN OVER	NET WORTH

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

8.1 Details of various items being manufactured/consultancy undertaken.

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

8.3 Experience and expertise for the items proposed in EOI.

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

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

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

8.7 Details of ISO certification

8.8 Undertaking as per Annexure-B:

9 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, IR may delete our name from the list of qualified Respondents. We further understand that DFC will give first preference to the applicants considered relevant for the purpose.

10 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 dully notarised & 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 / conviction 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) would result in disqualification.
 - 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