



Expression of Interest (EoI)
FOR
PAYLOAD MONITORING SYSTEM

Reference No. CIL/SYS/7109 Dated: 18.04.2023

1. Introduction

This Expression of Interest (EoI) is being floated by Coal India Limited for the purpose of identifying organizations who are willing to participate in building, commissioning, operating & maintaining the Payload Monitoring System to capture the payload of loading (Dumpers) and hauling equipment (Shovel / Excavators) on real time basis with robust, implementable, interoperable, innovative, cost effective and scalable technology options.

The objective of this Expression of Interest (EoI) is to identify efficient solutions with a clear understanding of the scope, approach, methodology, functional and technical architecture & other technical conditions as per the requirement of Coal India Ltd with minimum time frame to complete the implementation of the Payload Monitoring System with increased productivity, reduced maintenance costs and improved safety and Go-Live and can further operate & maintain the same for a period from the date of Go-Live.

2. Project Background

Over the years Coal India Limited has invested heavily in procurement of new machinery and equipment to augment production level of the company. However, it has been observed that machines are not being utilized optimally due to issues with availability of land and reduction in skilled manpower both for operation and maintenance. It is therefore felt that the productivity /Utilization of the equipment may be at optimal level for which Payload monitoring device are to be installed in loading equipment which are not equipped with the same.

At present, there are 612 loading equipment, consisting of 202 Electric Rope shovel and 410 Hydraulic shovel working in conjunction with 2636 dumpers of different capacity. The standard combination is 5-6 cum bucket capacity shovel with 60T dumpers, 10 cum bucket capacity shovel with 100T dumpers, 20 cum bucket capacity shovel with 190T dumpers and 42 cum bucket capacity shovel with 240T dumpers

3. Objectives of EoI

Objective of this EOI is to gather knowledge about prevailing technologies of a Payload Monitoring System for shovels/Excavators & Dumpers.

- i. The Payload Monitoring System , a device that should be used to capture the payload of loading (Shovel / Excavators) and hauling equipment (Dumpers) on real time basis. This device should use sensors installed at various load points in the equipment. A compatible software to accurately measure the weight of the payload being carried by the vehicle should also be provided. By monitoring payload weight and other variables, such as cycle time, travel time and fuel consumption, the device

should help to optimize the performance of heavy machinery by minimizing under loading / overloading of dumpers.

- ii. The benefits of a Payload Monitoring System should include increased productivity, reduced maintenance costs and improved safety. By ensuring that equipment are not overloaded, the device can help to prevent accidents and reduce the risk of damage to equipment. It can also help to improve productivity by ensuring that equipment are carrying the maximum payload without exceeding their safe operating limits in every cycle.
- iii. Obtain confirmation as to how the service providers/system integrators would technologically, operationally provide and support these services;
- iv. Obtain confirmation from the respondents on how they propose to provide for scalability, upgradability and interoperability of the solution to be deployed.

4. Proposed Scope of Work

The Payload Management System will capture and transmit following information in real time and the Scope of Work would primarily be but not limited to:

- Machine ID of Loading Equipment
- Operator ID of Loading Equipment.
- Date of Loading
- Weight of the material handled in in each load in its bucket
- Type of material handled (Coal / Overburden)
- Cumulative load in each trip of a dumper
- Equipment no of the Hauling equipment (Dumper)
- Start time of Loading a dumper
- End Time of completing loading of a dumper
- Average cycle time of one bucket loading
- Average Cycle time of Complete loading of one dumper
- No of bucket required for complete loading of a dumper
- Waiting time of excavation excavator
- Progressive working hour of the equipment
- Based on the above recorded information various MIS report should be generated based on the user requirement.

The Prospective Bidder/ Service Provider should propose Technological Solution for the above proposed Scope of Work.

6.2. General Eligibility

The prospective bidder should be in the business of Electronic communication networking and involved in electronic communication network implementation, telecom infrastructure development or provisioning, large-scale voice or data connectivity implementation/integration, internet service provisioning in multiple cities or multiple states, core or backbone layer telecom equipment manufacturing and other business of similar nature for at least the past 5 years.

6.3. Availability of EoI document

The EoI document can be downloaded from the Coal India Web Portal i.e. <https://coalindiatenders.nic.in> & www.coalindia.in.

7. EoI Pre-qualification criteria

The prospective bidder should have the capability to implement the projects having Industry experience, requisite manpower of required qualification and experience, project management skills and quality/level of work. Respondent should have proven record in implementing heterogeneous system integration projects and operating centre projects.

The Prospective Bidder/ Service Provider must have Company registration certificate, Registration under labor laws & contract act, valid VAT/ Sales Tax Registration Certificate, valid Service Tax Registration Certificate and Income Tax Return with Audit Report from CA. Prospective Bidder/ Service Provider shall also provide an attested copy of all the above mentioned certificates along with this bid document.

It is to be noted that in case of non-compliance of any of the above clauses mentioned in EoI pre-qualification criteria, the response will be summarily rejected without entertaining any clarification from the Prospective Bidder/ Service Provider.

The Prospective Bidder/ Service Provider has to qualify the above criteria. Failing in any one will lead to disqualification.

8. Submission of EoI response

8.1. EoI Response format

The Prospective Bidder/Service Provider should submit response to the EoI on <https://coalindiatenders.nic.in> and also submit the hard copy of the same on the date of presentation with the following information:

- a. The covering letter on the Official Letter Head
- b. Details of the Bidder (Annexure-1)
- c. Details of Authorized person (Annexure-2)
- d. Documents related to Proposed Solution (Annexure-3).

8.2. Schedule of events

The EoI Participants are requested to note that dates mentioned in the schedule of events Coal India Ltd. Kolkata reserves rights to modify these dates at any time.

S. No.	Event	Timeline
1	Publication of Expression of Interest (EoI)	19-04-2023
2	End date of submission of Expression of Interest (EoI)	03-05-2023 upto 04:00 pm
3	Opening of Expression of Interest (EoI)	03-05-2023 upto 04:30 pm
3	Presentation, Submission of Documents and Discussion with the Prospective Bidder/ Service Provider	09-05-2023 & 10-05-2023 at 11.00 am

Contact Details:

Email id: krakshit.cil@coalindia.in

Phone Number: +91 8902495692

Place of Presentation, Submission of Documents and Discussion with the Prospective Bidder/ Service Provider: Coal Bhawan, Action Area 1A, Rajarhat, Newtown, Kolkata 700156

8.3 Terms and conditions of Bidding Firms

The EoI Participants should accept all the terms and conditions given in the EoI Document. EoI Participants must state categorically whether or not the offer conforms to requirement and schedule of requirements and indicate deviations.

- The eligible and interested vendors may send detailed response with EOI in the prescribed format by 14:00 hours on or before the above prescribed date (PLEASE DO NOT ENCLOSE ANY COMMERCIAL PROPOSAL).
- Response to the EOI from the respondents should be submitted in a sealed envelope, superscribed with the words "EXPRESSION OF INTEREST FOR PAYLOAD MANAGEMENT SYSTEMS FOR COAL INDIA LTD'S HEADQUARTER AT KOLKATA". Respondents should provide one (1) hard copy and one (1) electronic (soft) copy of the response.
- All information contained herein and the enclosures are confidential information. By accepting this material the recipient agrees that the information will be held in confidence and will not be reproduced, disclosed or used in whole or in part without prior permission of Coal India Ltd. Kolkata.
- During evaluation and finalization of the EoI, Coal India Ltd. Kolkata may, at its discretion, ask the Prospective Bidder/ Service Provider for any clarification on its EOI. The request for clarification and the response shall be through e-mail followed by letter in writing.

- Notwithstanding anything contained in any of the clauses in this EOI, Coal India Ltd. Kolkata reserves its right to accept or reject any EOI, and to annul each or all the EOI processes and reject all the EOI at any time prior to issuing the RFP without thereby incurring any liability to the affected Prospective Bidder/ Service Provider, or any obligation to inform the affected vendor or vendors of the grounds for Coal India Ltd. Kolkata's action.
- Any assumptions made by the Bidder in response of this request for EOI will be their own risk and cost. Coal India Ltd. Kolkata will not be liable for any such assumptions / representations made by the Vendors.

8.4 Clarifications

If deemed necessary, Coal India may seek clarifications on any aspect from the participating agency. Coal India will ask the EOI Participants to make a presentation for the purpose of clarification of the tender. All expenses for this purpose, as also for the preparation of documents and other meetings, will be borne by the prospective bidders.

8.5 Presentation of solution

The detail and in depth presentation of the solution proposed in EOI will be done as such the prospective bidder should provide an extensive solution understanding of the project. The presentation should contain all the points mentioned in the proposed solution.

The presentations may be used in the EOI to select the best of available solution(s) for the Coal India Ltd. project.

8.6 The information submitted in the response to the EOI may be subjected to public release (As per RTI norms). Vendors responding to this notice assume the risk of public disclosure if confidential information is included.

The EOI does not constitute a commitment to offer of a Contract or prospective contract. CIL shall not be liable for any cost incurred by any potential vendor / service provider in preparation and submission of information in response to this EOI.

ANNEXURE 1 Details of the Bidder:

Company Name	
Address	
Telephone	
Mobile No	
E-mail	
Website	

ANNEXURE 2 Details of Authorized person:

Name	
Designation	
Address	
Telephone	
Mobile No	
E-mail	

ANNEXURE 3 PROPOSED SOLUTION

The Response of EoI should include all the following points also as a part of the Proposed Solution document.

1. Compliance on understanding of the requirement and proposed Functional Requirement Specification as per EoI document.
2. Detailed Project Plan, Approach and Methodology, Migration Plan, etc. are to be furnished.
3. Enterprise Solution should have an Indicative Bill of Material with quantity and indicative cost of the project including the licenses required, implementation, service and support for the entire solution footprint for a period.
4. Scalability, Redundancy, Tolerance, Performance and Manageability of the solution.
5. Minimum indicative number of resources/manpower to support the project

6. Solution should be designed based on the Project objective, Functional requirement and scope of work etc.