



## **PARADIP PORT TRUST**

Tel.: (06722) 222034 / 222074

### **INVITATION FOR EXPRESSION OF INTEREST & BUDGETARY OFFER**

**FOR**

## **“Mechanized Dust Suppression System for Roads inside Port Prohibited Area”**

**Submission on or before 14.12.2021**

*(This notice is issued only to elicit an Expression of Interest from Parties interested in the Project and does not constitute any binding commitment from Paradip Port Trust to proceed with the Project or invite any or all the Parties in the subsequent bidding process.)*

## SECTION-I

### 1.0 **BACKGROUND**

#### 1.1 **PREAMBLE**

Paradip Port Trust is located on the east coast of India mainly handles bulk materials such as Iron Ore, Thermal Coal, Cooking Coal, Lime Stone etc. Paradip Port Trust (PPT) has about 18 Km long road inside prohibited area of PPT. These roads are supplementing Intra-Port Dumper movements and to & fro cargo movement by Trucks and also movement of general Traffic. These main roads are connected by branch/ internal roads to different cargo stockpiles including coal stockpiles generating dust nuisance, spillage etc. during transportation by Dumpers / Trucks and during loading/unloading on/ from Dumpers and Trucks. Lots of dust is generated at the Stockpiles and along the road on which these vehicles ply.

PPT has implemented presently manual mode of dust control on the roads. In this methodology, water spraying is done through water Tanklers. These Tanklers spray water as & when required as per the road conditions.

PPT intends to install Mechanized Dust Suppression System for Roads inside Port Prohibited Area.

#### 1.2 **INTRODUCTION AND BASIC DATA ABOUT PARADIP PORT TRUST:**

Paradip Port Trust is a major sea port of India managed by the Paradip Port Trust (PPT). The Port was commissioned and open to International Traffic in 1966. The Paradip Port is situated on the east coast of India, in Jagatsinghpur District of Odisha at a latitude of 20<sup>o</sup> 15' 55" North and longitude of 45<sup>o</sup> 40' 35" East. It is situated at confluence of the Mahanadi River and the Bay of Bengal. It is about 260 nautical miles North of the Visakhapatnam Port and 210 nautical miles South of Kolkata Port. Paradip Port has 15 berths and 3 SPM's. The fifteen berths comprise three mechanized berths, seven general cargo conventional berths, two oil jetty berths and three dedicated berths.

Paradip Port is connected via road with Cuttack and Chandikhol, which are two of the major cities in Odisha.

- Chandikhol and Paradip are connected by NH-5A (4 lanes, approx. 77 Kms)
- Cuttack and Paradip are connected by SH-12 (2 lanes, approx. 90 kms)

Paradip Port Rail Network is a part of the East Coast Railway System and is connected to the hinterland via Cuttack by a board gauge rail link. Cuttack is around 90 kms from Paradip and connects to Howrah – Chennai main line.

### **1.3 METERIOLOGICAL DATA:**

The following meteorological information are provided to assist the applicant(s) in preparing an initial proposal for the EOI. PPT does not guarantee the accuracy or completeness of the information.

Maximum Temperature	:	42.4 <sup>0</sup> C
Minimum Temperature	:	8.9 <sup>0</sup> C
Annual Rainfall (Avg.)	:	1500 mm.
Average Wave Height	:	2 mtr (Range: 0.5 mtr. to 3.5 mtr.)
Maximum Wave Height	:	8.2 mtr on 28.10.1999.
Minimum tide	:	0.20 mtr.
Maximum tide	:	3.50 mtr.
Wave direction (Apr-Sept.)	:	From S to SW
Wave direction (Oct-Dec.)	:	From N to NE
Average wind speed (Summer)	:	35 – 42 Km / Hour
Average wind speed (Winter)	:	18 – 24 Km / Hour
Maximum Wind speed	:	259 Km / Hour as recorded on 28/29.10.1999

Port may experience strong winds and gales when any depression, storm or cyclone develop in the Bay of Bengal and come close to the Paradip coast. Other technical details in this context may be obtained by the applicant from the Meteorological Department.

### **2.0 THE PROJECT**

PPT intends to install auto-mechanical Water Spray System along the roads which will run in a sequential mode to continuously keep the roads in wet condition thus preventing floating of dust nuisance in and round the road network arising out of vehicular and wind movements.

## 2.1 Area of Coverage of these system :-

The following are the zone wise details of the road length and area proposed for the consider for mechanized road sprinkling system.

Sl. No.	Location / Road details	Cement concrete road (mtr.)	Total road length (mtr.)	Road width (mtr.)	Estimated coverage area (mtr <sup>2</sup> )	Availability of Median
<b>A) ZONE-1 :</b>						
(i)	From PPL Berth to Dock Canteen Chawk	600x1	600	7.00	4200	No
(ii)	Dock Canteen Chawk to NQ-II Level Crossing	100 x 2	200	14.00	1400	50% median
(iii)	Wagon Tippler Junction House to NQ-II Level Crossing	800 x 1	800	10.50	8400	No
<b>TOTAL (A)</b>			<b>1600</b>		<b>14000</b>	

<b>B) ZONE -2 :</b>						
(i)	Wagon Tippler Junction House to IOHP Time Office	1000 x 1	1000	7.00	7000	No
(ii)	Old Gate No.I Chawk to Wagon Tippler Junction House	460 x 1	460	7.00	3220	No
(iii)	Old Gate No.I Chawk to New Gate No.I Chawk	600 x 2	1200	14.00	8400	Yes
(iv)	Old Gate No.I Chawk to YS Office	1000 x 1	1000	7.00	7000	No
<b>TOTAL (B)</b>			<b>3660</b>		<b>25620</b>	
<b>C) ZONE -3 :</b>						
(i)	New Gate No.II (Atharabanki) to Old Gate No.II Chawk	3050 x 2	6100	14.00	42700	Yes
(ii)	Old Gate No.II Chawk to Old Gate No.I Chawk	800 x 2	1600	14.00	11200	Yes
<b>TOTAL (C)</b>			<b>7700</b>		<b>53900</b>	
<b>G.TOTAL (A) +(B) +(C) :</b>			<b>12960</b>		<b>93520</b>	

### **3.0 DESIGN CRITERIA**

PPT intends to install low height high pressure water sprinklers along the roads to wet the dust on the roads and prevent lifting up of dust due to vehicle movement / wind. The total 13Km (Appx. ) of concrete road divided in 03 Zones (Zone-1, 2 & 3) are to be covered with sprinklers. Suitable no. of bore wells are to be installed to facilitate the requirement of makeup water. Pump houses and VATs / Sump are to be constructed. Pumps, pipe lines and suitable sprinklers are to be installed. The technical requirement of the sprinkling system are as under.

- (i) Pump Houses made out of pre-fabricated steel structurals covered with GCI sheets with adequate capacity of RCC Tank/ Vat are to be constructed to fulfill the water requirement for sprinkling purpose.
- (ii) Adequate no. of Bore Wells is to be bored to meet the water requirement.
- (iii) Water spray over the road shall be produced by sufficient no. of circular full 360<sup>o</sup> Sprinklers suitably installed along the median of roads (in the case of double road). Half circle 180<sup>o</sup> sprinklers shall be mounted along one side of single road to cover the entire projected area of the roads. These sprinklers shall be swiveling type with provision of change in the swiveling angle as well as angle of nozzle.
- (iv) The sprinklers for the application shall break-up the water into small droplets simulating natural rainfall. Sprinklers / group of Sprinklers shall be controlled by flow activation system having the facility to operate the sprinklers in a pre-determined cycle time (through PLC System). The water sprayed on the road will wet the dust on the roads and prevent lift-up of dusts due to vehicle movement / wind. The sprinklers are to be designed taking into account the evaporation loss and area of the road to be sprinkled.
- (v) The sprinklers will be directly mounted on water pipe lines. The height of sprinklers shall be tentatively kept 300-400mm above road level only and shall be protected suitably to avoid damage due to movement of vehicles.
- (vi) The sprinklers will be bunched in groups connected from a common header depending on the pump capacity and flow through each sprinkler. Flow through each bunch of sprinklers will be controlled automatically by solenoid valves through a control system such that the duration of spray through each bunch and the spraying cycle can be adjusted as per requirement from pump house –cum- control room.
- (vii) Dust suppression system to control dust nuisance on roads will be done in sequential manner in pre-determined cyclic manner.

- (viii) Material of construction (MoC) of important items shall be as under:-
- (a) Pumps : Horizontal Centrifugal Multi Stage Pumps shall be of duplex steel compatible for saline / brackish water.
  - (b) Motors : LT Squirrel Cage Induction Motor of IP55 shall be installed.
  - (c) Foot valve with strainer: Suitable Foot valve with strainer compatible for saline / brackish water.
  - (d) Expansion Below: Suitable metallic expansion below both for suction and delivery side to be installed.
  - (e) Pipes : Pipes from Intake Pump house to respective RCC water tanks shall be high grade UPVC pipes.
  - (f) Pipes : Pipes from Pump House to sprinklers and Sprinklers shall be high grade HDPE with design pressure of 16Kg./cm<sup>2</sup>.
  - (g) Nozzles : Shall Nylon/ equivalent compatible for saline water.
  - (h) Valves : Non-Return Valves (NRV), Gate Valves, Globe Valves, Solenoid Valve (Control Valve), Motorized Operated Valve of Duplex steel / equivalent compatible for saline / brackish water.
  - (i) Control & Instrumentation Equipment: Pressure Gauges, Pressure Switch, Pressure Transmitter, Flow Transmitter, Level Sensor / Switch compatible to the system.
  - (j) Power and Control Cable: Compatible to the system installed.
  - (k) MCC Panel: Compatible to the system installed.
  - (l) Control Panel: PLC with HMI compatible to the system installed.
  - (m) Junction Box (JB): IP65 JBs compatible to the system installed.
- (ix) Control of sprinkling system shall be done through PLC based system. Each zone of sprinkling system shall be bunched into calculated no. of groups which shall be operated in a sequential mode.
- (x) All the pipelines are to be laid along the road underneath the ground.
- (xi) PPT will provide electric power supply from the nearest Sub-station available zone-wise. The required cables (power & control), panels and all electrical accessories required for the work to be supplied by the Contractor.

#### **4.0 THIRD PARTY INSPECTION :**

The third party inspection is included for this contract. The Contractor shall avail the services of IRS / RITES / EIL / MECON / Bureau Veritas for third party inspection.

## **5.0 QUALIFYING REQUIREMENTS**

The interested firm shall submit details pertaining to past business experience, financial status indicating turnover of the applicant for past three years and other details given in FORM–A.

## **6.0 PROPOSAL**

Interested firms are hereby invited to submit their “Expression of Interest (EOI) & Budgetary Offer in the BoQ format (Attached) & break up price format (Attached) along with Technical details of the proposed system zone wise for the work “**Mechanized Dust Suppression System for Roads inside Port Prohibited Area**”. The information submitted will be treated as confidential.

## **7.0 SITE VISIT**

Interested firms may visit the site on any day during working hours (0900 hrs to 1300 hrs) prior to last date of submission of their Expression of Interest (EOI) and Budgetary Offer i.e., **14.12.2021**, to ascertain the exact nature of work and site conditions for preparation and submission of a realistic offer.

## **EOI & BUDGETARY OFFER TIMELINES**

### **(A) GENERAL INFORMATIONS**

<b>Sl. No.</b>	<b>Item</b>	<b>Details</b>
1.	Name of Work	<b>Mechanized Dust Suppression System for Roads inside Port Prohibited Area.</b>
2.	Department/Organization	ELECTRICAL & MECHANICAL DEPARTMENT / PARADIP PORT TRUST
3.	Executive Division	Workshop Division-I
4.	Officer Inviting the Bid	Executive Engineer
5.	Immediate Next Authority	Superintending Engineer
6.	Sanctioning Authority	Chairman, PPT
7.	Executing Authority	Executive Engineer

### **(B) OTHER INFORMATION**

<b>Sl. No.</b>	<b>Item</b>	<b>Date</b>	<b>Time</b>
1	Publication date	22.11.2021	16:00 Hrs.
2.a)	Document download start date	22.11.2021	16:00 Hrs.
b)	Document download end date	14.12.2021	11:00 Hrs.
3.	Offer Submission end date	14.12.2021	11:00 Hrs.
4.	Bid Validity period	120 days	
5.	Currency of Contract	Indian Rupee	
6.	Language of Contract	English	



**SECTION-II**  
**INFORMATION & INSTRUCTION FOR APPLICANTS**

**1. GENERAL:**

- 1.1 Letter of Interest and forms 'A', 'B' & 'C' seeking information/documents are given in Section-III.
- 1.2 All information called for in the Forms A, B & C shall be furnished against the relevant columns.
- 1.3 The applicant may furnish any additional information, which is deemed necessary to establish capability to successfully complete the envisaged project.
- 1.4 The EOI& Budgetary Offer document in the prescribed form duly completed shall be submitted either through e-mail or by registered post delivered to "**The Chief Mechanical Engineer**, Paradip Port Trust, Dist: Jagatsinghpur, Odisha, PIN – 754142, e-mail ID: cme@paradipport.gov.in" on or before **14.12.2021** at **1100 hrs**. Documents submitted in connection with EOI& Budgetary Offer will be the property of Paradip Port Trust.
- 1.5 For further details please contact "**The Executive Engineer**, Workshop Division-I Paradip Port Trust, Dist: Jagatsinghpur, Odisha, PIN - 754142" Tele: 06722-222074, Mob.: 9437551451. Email: dhirendrakkumars@paradipport.gov.in or the Chief Mechanical Engineer, Paradip Port Trust @cme@paradipport.gov.in.

**2. PARTICULARS:**

The particulars of the project given in Section-I, are only indicative / subject to change and may be considered only as advance information to assist the applicant.

**3. INFORMATION TO BE GIVEN IN THE REQUIRED FORMATS:**

Applicant should furnish the following:

**A) ORGANISATION INFORMATION (Form-A)**

Applicant is required to submit the comprehensive information in respect of his organization in the Form – 'A' attached.

**B) LIST OF PROJECTS (Form-B)**

Applicant is required to submit the list of similar assignments/projects successfully completed/ongoing during the last five years in Form-'B'.

**C) SUGGESTIONS (Form-C)**

The Firms are requested to submit their proposals/views that can be considered for the Project formulation, in Form-'C'. Additional sheets can be used.

#### **4. LETTER OF INTEREST**

The applicant should submit the Letter of Interest (LOI) attached with the 'EOI-cum-Budgetary Offer' document (section-III).

#### **5. DISCLAIMER**

The information in this document has been prepared to assist the applicants in preparing the non-binding EOI-cum-Budgetary Offer and it is clarified that

- This document does not constitute any contract or agreement of any kind whatsoever.
- This document does not, and does not purport to contain all the information that interested firms and their advisors would desire or require in reaching decisions as to the transaction. Interested applicant should form their own view as to what information is relevant to such decisions and make their own independent investigations in relation to any additional information.
- Neither the information in this document nor any other written or oral information in relation to the transaction is intended to form the basis of or the inducement for any investment activity or any decision to enter into any contract.
- Neither Paradip Port Trust nor their employees or advisors shall be liable to any interested party or any Entity under law including the law of contract, tort, the principles of restitution or unjust enrichment or otherwise for any loss, expenses or damage which may arise, or be incurred, or suffered, in connection with this document, or any matter that may be deemed to form part of this document, or any other information supplied by or on behalf of Paradip Port Trust or their employees or advisors or otherwise arising in any way from the selection process ahead.
- It shall not be assumed that there shall be no deviation or change in any of the herein mentioned information. While this document has been prepared in good faith, neither Paradip Port Trust nor any of their respective officers or employees or advisors or agents make any representation or warranty or shall have any responsibility or liability whatsoever in respect of any statements or omissions here from.

**6.** After assessing the response to this EOI& Budgetary Offer from the Applicants, Paradip Port Trust shall initiate appropriate steps for selecting a contractor through a transparent bidding process.

**SECTION-III**  
**LETTER OF INTEREST**  
**(To be typed in Firm's Letterhead)**

To

**The Chief Mechanical Engineer,**  
Paradip Port Trust,  
Administrative Building,  
Paradip Port - 754142  
Dist: Jagatsinghpur (Odisha)  
Tel.: (06722) 222034

**Sub: Mechanized Dust Suppression System for Roads inside Port Prohibited Area - Reg.**

Sir,

Having examined the details given in EOI Notice and EOI document for the above project, I/we hereby submit our Expression of Interest & Budgetary Offer and the relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed forms 'A', 'B' & 'C' and accompanying statements are true and correct.
2. I/We have furnished all information and details necessary for EOI& Budgetary Offer and have no further pertinent information to supply.
3. I/We also authorize Paradip Port Trust or their authorized representatives to approach individuals, employers and firms to verify our competence and general reputation.
4. I/We submit the following certificates in support of our suitability, technical knowhow and capability for successfully implementing the project.

Signature(s) of Applicant(s)

Enclosures

Seal of applicant

Date of submission

## FORM – ‘A’

### Organizational Structure of Applicant

1	Name & Address of the applicant with Telephone No./ email	
2	a) Year of Establishment b) Date of commencement of operations	
3	Legal status of the applicant (attach copies of original document defining the legal status) a) Proprietorship firm b) Partnership firm c) limited company or Corporation/ Joint venture/ Consortia d) Others (Please specify)	
4	Names of Directors & other executives involved in this project with designation and contact information.	
5	Applicant's annual turnover in the last three financial years in Indian Rupees.	
6	Brief write up about Applicant's business during last three financial years	
7	Any other information considered necessary but not included above	

We have attached:-

1. Copies of last three years Annual Audit Reports or Auditor's certificate.
2. Brochures if available, of the Applicant

Signature

Designation

**FORM – ‘B’**

**Details of similar projects undertaken by Applicant in the last five years**

Name	
Role and Responsibility in the project	
Location	
Description	
Time for which the project has been successfully in operation.	
Indicative Project cost in Indian Rupees	
Any other information considered necessary but not included above	

Signature

Designation

**Note: Please use separate sheet for each Project.**

## FORM – ‘C’

### Suggestions and views of Applicant

Brief details of Mechanized Dust Suppression System proposed	
Land area requirements if any	
Indicative investment for the proposed scheme in Indian Rupees	
Shutdown period (with detail justification)	
Assistance required from Paradip Port Trust	
Suggestions or views (Please attach additional sheet).	

Applicant may add any other detail considered to be important

Kindly attach a conceptual plan.

Signature

Designation

## **BILL OF QUANTITY**

**Name of the Work : Mechanized Dust Suppression System for Roads inside Port Prohibited Area.**

Sl. No.	Description	Unit	Qty.	Rate (Rs.)	Amount (Rs.)
1.	Design, supply, installation & commissioning of mechanized dust suppression system for Zone-1 of Roads inside prohibited area.	LS	01		
2.	Design, supply, installation & commissioning of mechanized dust suppression system for Zone-2 of Roads inside prohibited area.	LS	01		
3.	Design, supply, installation & commissioning of mechanized dust suppression system for Zone-3 of Roads inside prohibited area.	LS	01		
4.	Operation & Maintenance of Zone-1.	Year	03		
5.	Operation & Maintenance of Zone-2.	Year	03		
6.	Operation & Maintenance of Zone-3.	Year	03		
<b>TOTAL :</b>					

In words (Rupees \_\_\_\_\_  
\_\_\_\_\_).

*We hereby confirm that the above quoted price is the landed price of all the goods and services at Paradip Port Trust excluding Goods and Service Tax (GST).*

*N.B.: Break-up price for the items at Sl. No.1, 2 & 3(Zone Wise) is to be submitted separately in the attached format.*

Signature of the firm

Date:

No. of corrections: _____	(FOR OFFICIAL USE ONLY)	No. of erasures: _____
No. of overwriting: _____		No. of insertions: _____

**Annexure-I**

**BREAK-UP PRICE (ZONE-1 / ZONE-2 / ZONE-3)**

Sl. No.	Description of Item	Qty.	Rate (Rs.)	Amount (Rs.)	% of applicable GST
1	Design Engineering	01			
2.	Supply of goods	01			
3.	Installation, Commissioning & Acceptance	01			
Total					

**N.B.:**

- (i) Separate sheet shall be used for breakup price for Zone-1, Zone-2 & Zone-3.
- (ii) The rate indicated must be excluding GST and GST percentage may be mentioned as extra.
- (iii) The total of the Break-up price as above should match with the total price quoted in the Bill of Quantity (BOQ) for the respective zones.

Date:

Signature of the Firm