Expression Of Interest (EoI) for Identifying Partners for Establishing an Integrated EMI/EMC and Communication Test Centre at Vallam Vadagal, Kanchipuram District

No.TIDCO/EoI-03/2023

Tamil Nadu Industrial Development Corporation
19-A, Rukmini Lakshmipathy Road, Egmore, Chennai - 600008

Table of Contents

ABOUT TIDCO and TNDIC 2
DISCLAIMER 2
EXPRESSION OF INTEREST (EoI) FOR IDENTIFYING PARTNERS FOR ESTABLISHING AN EMI/EMC AND COMMUNICATION TEST CENTRE AT VALLAM VADAGAL, KANCHIPURAM DISTRICT 4
Annexure 1 – Covering Letter 6
Annexure 2 – Details of Interested Party/Applicant 7
Annexure 3 – Documents to be submitted 8
Annexure 4 – Location Map 9
Annexure 5 – Tests Planned 10

ABOUT TIDCO and TNDIC

Tamil Nadu Industrial Development Corporation Limited (TIDCO), a premier industrial development agency of the Government of Tamil Nadu, established in 1965, leverages industrial growth in the state by promoting medium and large industrial and infrastructure projects involving large investments and huge employment potential in association with Private Promoters.

TIDCO has been nominated as the Nodal Agency by the Industries Department for promotion of Defence Industrial Corridor project in the State to effectively coordinate various activities of the project. TIDCO, in order to support the Aerospace and Defence Industries in the State is focusing on implementing Aerospace & Defence Park development programs, i.e. supporting the existing aerospace units technically and attracting more Aerospace and Defence companies towards creating an integrated ecosystem for Aerospace Industry development covering design, engineering, manufacturing, servicing and maintenance of assets particularly pertaining to drones and strategic electronics. TIDCO while focusing on the Aerospace and Defence Sector, is also keen to support the growth of other sectors like semi-conductors, electronic manufacturing, precision manufacturing machines & equipment manufacturing to name a few. One such initiative is a proposed test centre for Electromagnetic Interference / Electromagnetic Compatability (EMI/EMC) and Communication at Sipcot Industrial Park, Vallam Vadagal, Kanchipuram District near Chennai.

TIDCO has identified a land parcel of about 1.2 acres for this at SIPCOT Industrial Park, Vallam Vadagal. This is close to the Chennai-Bengaluru and Chennai-Kanyakumari National Highways and abutting the Chennai Peripheral Ring Road. It is also located within the electronics manufacturing hub of Chennai This locational advantage provides it the required social, industrial, strategic and educational ecosystem which are very much required for development of the high-tech industrial ecosystem. This site is also in proximity to the proposed test centres for Electro Optics, Electronic Warfare and Unmanned Aerial Systems being established in collaboration with Ministry of Defence, Defence Public Sector Units and private industries.

DISCLAIMER

1. The purpose of this document is to provide the Applicant(s), with information to assist the formulation of their EoI. This document does not purport to contain all the

information each Applicant may require. This document may not be appropriate for all persons, and it is not possible for TIDCO, its employees or advisors to consider the functional/investment objectives, financial situation and particular needs of each Applicant who reads or uses this document. Each Applicant should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this document and where necessary, obtain independent advice from appropriate sources. TIDCO, its employees and advisors make no representation or warranty and shall incur noliability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the document.

2. The issue of this EoI does not imply that TIDCO is bound to undertake the Bidding Process and select the partners.

3. TIDCO reserve the right to accept or reject any of the proposal without assigning any reasons thereof.

4. TIDCO reserves the right to choose the partners based on the financial contribution to the projects and their other credentials.

EXPRESSION OF INTEREST (EoI) FOR IDENTIFYING PARTNERS FOR ESTABLISHING AN INTEGRATED EMI/EMC AND COMMUNICATION TEST CENTRE AT VALLAM VADAGAL, KANCHIPURAM DISTRICT

1. Background

1.1. TIDCO intends to create an enabling ecosystem for multi-sectoral industrial growth in Tamil Nadu with special focus of segments like automotive, aerospace & Defence, electronics etc. Towards this, TIDCO has identified some of the gaps which exists in the ecosystem and is in the process of addressing these. One of them is the availability of common test centres where equipment could be tested for compliance to various standards as per the industrial segment. TIDCO has initiated the process for creating test centres for Mechanical & Materials, Electro Optics, Electronic Warfare, Unmanned Aerial Systems and EMI/EMC, Communication. While the first one is planned for Trichirapalli, the rest are planned to be created near Sriperumbudur in the proximity to the city of Chennai and its Electronics hub. Each of these test centres are being created with support from Govt of India and in partnership with private industry with SPVs for each of the centres.

1.2. The EMI/EMC and Communciation Test Facility is planned to be located at SIPCOT Industrial Park, Vallam Vadagal spread over an area of about 1.2 acres for which TIDCO posses the land. The layout of the test facility and equipment to be housed have already been finalized. The estimated cost of the project is about Rs 120 crores for which financial support is being sought from Ministry of Electronics and Information Technology to the tune of about Rs 75 crores, with the rest of the funding being in form of equity. This test facility would be NABL accredited and would be able to support various standards like MIL, IEC, CISPR, ISO, FCC, EN, ANSI etc. TIDCO proposes to invest about Rs 12 crores as equity and is looking for partners with the required financial and technical capabilities to partner with TIDCO in this endeavour. TIDCO also plans to get the facility operational within a period of 18 months with the required equipment and accreditions.

1.3. TIDCO hence seeks interested firms to invest atleast Rs 5 crores in the equity of the SPV and become partners in the SPV. This facility would be operated professionally by the SPV or by any one of the equity partners. The facility is planned to be run on a self sustaining model. The governance of the SPV would be by the Board of Directors in which the chairperson would be nominated by the firm which invest the maximum equity and the rest of the share holders having seats on the board.

1.4. Industries which are keen to participate in this venture as equity partners are requested to submit their responses against this EoI along with their proposed equity contribution and willingness to operate the facility. Based on the responses of EoIs received, TIDCO may finalize the partners, their individual equity share holding and intiate the other process involved to make this venture operational.

2. Submission of EoI

The EoI to be submitted by the Interested Parties shall, *interalia*, include:

(a) Covering Letter expressing interest to participate in the venture are to respond in the form of the letter prescribed hereunder as Annexure 1; and

(b) Details of interested party/applicant, documents to be submitted in the form and manner as prescribed hereunder as Annexure 2 and 3.

3. The Interested parties shall submit their respective details to the Managing Director, TIDCO in aforesaid format latest by 05 Dec 23, 4.00 PM at the address as mentioned below:

Address:
The Managing Director
Tamil Nadu Industrial Development Corporatiom Limited
19-A, Rukmini Lakshmipathy Road, Chennai - 600008
Phone: 044 2855 4479
Email: info@tidco.com

4. Nodal Officer for Information about the EoI

For any additional information pertaining to this EoI, the Vice President(Aerospace & Defence),TIDCO, Phone: 044 2855 4479, Email: madhusoodhanan@tidco.com may be contacted.

5. How to Apply:

Download the 'EoI - Application Form' from the website www. tidco.com The duly filled Application along with its annexures shall submitted at TIDCO office or mailed to TIDCO.

Annexure 1 – Covering Letter

To

The Managing Director

TIDCO

19-A, Rukmini Lakshmipathy Road,Egmore,

Chennai – 600008, Tamilnadu, India

Sub: Expression of Interest (EoI) for allotment of Industrial plots Industrial Park, Karani Village, Tiruvallur District.

Dear Sir,

1. With reference to your EoI document No.TIDCO/EoI-03/2023, I/We the undersigned am/are hereby expressing our Interest to be part of the SPV which is being created by TIDCO for establishing and operating an integrated EMI/EMC and Communciation Test Faciltiy.
2. I/We are willing to invest about Rs _____ Crore in the project. Further I/We are willing/not willing to undertake operation and maintenance of the facility. Further, the issue of this EoI does not imply that TIDCO would consider our interest to be part of the SPV.
3. I/We have prepared our expression of interest as specified in the EoI Document and enclosed the annexures.

_____(Signature with Seal)_

Name of the person:

Designation:

Name of the Entity:

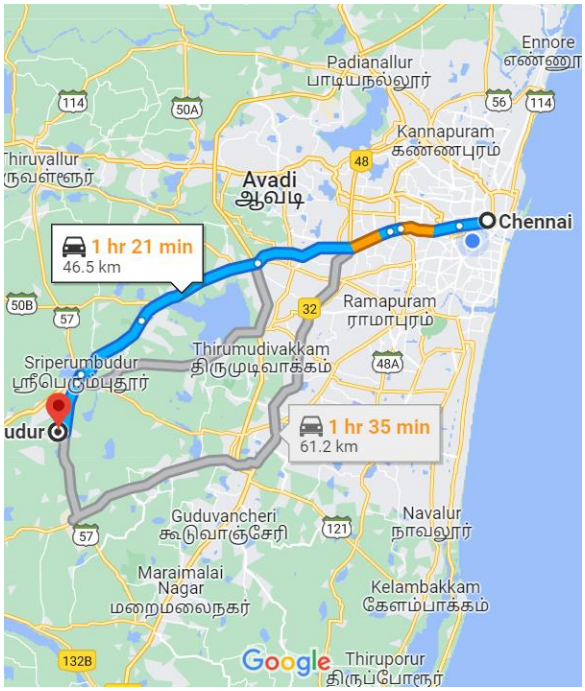
Annexure 2 – Details of Interested Party/Applicant

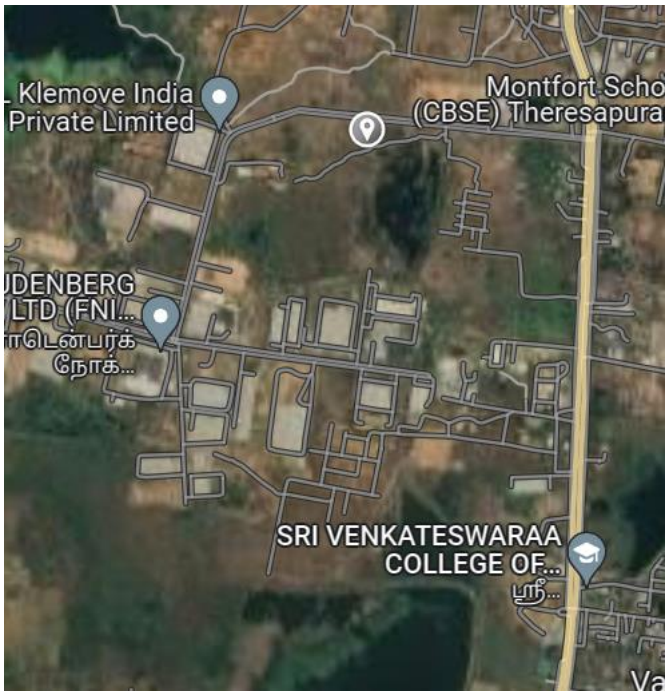
S.No	Particulars	Details
1	Name of the Interested Party/Applicant	
2	Designation/ Occupation	
3	Name of the firm / Company	
4	Registered Address:	
5	Email ID:	
6	Telephone / Mobile No.	
8	Proposed investment in the project (Atleast Rs 5 crores)	
9	Past experience in operating an EMI/EMC or Communication Test facility	
10	Industrial Sector in which the firm currently operates	

Annexure 3 – Documents to be submitted

1. Brief Report mentioning the company/ Promoters background
2. Copy of the Memorandum and Articles of Association along with certification of incorporation
3. Partnership deed in case of a partnership firm along with registration certificate
4. Udyam Registration Certificate for Micro, Small and Medium Enterprises/FIPB approval (in case of Foreign Investment).
5. Address proof/ PAN/GST
6. List of Directors/partners/Shareholders with shareholding pattern of the company/firm duly certified by a Chartered Accountant and in case the holding company is a foreign company, it should be certified by a CPA (Certified Public Accountant)
7. Annual Report/Profit & Loss Account for the last three financial years in case of existing companies/firms.
8. Other relevant documents as deemed necessary

Annexure 4 – Location Map





Annexure 5 – Tests Planned

The details of the tests which are envisaged to performed at the test centre are

EMI/EMC Tests

CE101: Conducted Emissions / Audio Frequency Power Leads / 30 Hz – 10 kHz	CS109: Conducted Susceptibility, Structure Current, 60 Hz to 100 KHz (Three Phase)	Bulk injection tests
CE102: Conducted Emissions / RF potential Power Leads / 10 kHz – 10 MHz	CS114: Conducted Susceptibility / Bulk Cable Injection / 10 kHz – 200 MHz (Single Phase)	Radio frequency equipment electromagnetic disturbance tests
CE106: Conducted Emissions, Antenna Port 10 KHz to 40 GHz	CS114: Conducted Susceptibility / Bulk Cable Injection / 10 kHz – 200 MHz (Three Phase)	Harmonics and Flicker test
RE101: Radiated Emissions / Magnetic Field / 30 Hz – 100 KHz	CS115: Conducted Susceptibility / Bulk Cable Injection / Impulse Excitation (Single Phase)	Electrical Fast Transients tests
RE102: Radiated Emissions / Electric Field / 10 kHz – 18 GHZ (40 GHz Optional/Phase II)	CS115: Conducted Susceptibility / Bulk Cable Injection / Impulse Excitation (Three Phase)	Electrical surge tests
RE103: Radiated Emissions, Antenna Spurious and Harmonic Outputs, 10 KHz to 40 GHz	CS116: Conducted Susceptibility / Damped Sinusoidal Transients / Cables & Power Leads / 10 kHz to 100 MHz (Single Phase)	Bonding and Grounding tests
CS101: Conducted Susceptibility / Power Leads / 30 Hz – 150 kHz (Single Phase)	CS116: Conducted Susceptibility / Damped Sinusoidal Transients / Cables & Power Leads / 10 kHz to 100 MHz (Three Phase)	Modulated stirred tests
CS101: Conducted Susceptibility / Power Leads / 30 Hz – 150 kHz (Three Phase)	CS117: Conducted Susceptibility, Lightening Induced Transients, Cable and Power Leads	Mode tuned tests
CS103: Conducted Susceptibility, Antenna Port, Intermediation, 15 KHz to 10 GHz (Single Phase)	CS118: Conducted Susceptibility, Personnel Borne Electrostatic Discharge	Measurement of RF tests
CS103: Conducted Susceptibility, Antenna Port, Intermediation, 15 KHz to 10 GHz (Three Phase)	RS101: Radiated Susceptibility / Magnetic Fields / 30 Hz – 100 kHz	Validation of RF tests
CS104: Conducted Susceptibility, Antenna Port, Rejection of undesired signals, 30 Hz to 20 GHz	RS103: Radiated Susceptibility / Electric Field / 2 MHz – 40 GHZ (2 MHz- 1 GHz)	Low voltage Directives (LVD), Machinery Directives (MD) and Radio Equipment Directive (RED)
CS105: Conducted Susceptibility, Antenna Port Cross - Modulation , 30 Hz to 20 GHz	RS103: Radiated Susceptibility / Electric Field / 2 MHz – 40 GHZ (2 MHz- 18 GHz)	
CS109: Conducted Susceptibility, Structure	RS105: Radiated Susceptibility, Transient Electromagnetic field	

Current, 60 Hz to 100 KHz (Single Phase)		

Communication Tests

S No	Type of tests
1	PCB & Module test system (ATS 500)
2	Low noise amplifier test
3	High power switches test
4	Frequency range test
5	Radio qualification and testing
6	Secure waveform variance test – antenna
7	Software verification and validation
8	Receiver and processor effectiveness test
9	Integrated system test
10	Field test (Receiver test and emitter verification)
11	Interface tests with other sensors
12	Boundary Scan test (XJTAG)
13	Conformal coating test (CRS9000)
14	High frequency test
15	Radio communication test (R8100)
16	Wireless (RF) transmitter test
17	Antenna testing
18	Receiver test
19	Antenna characterisation test
20	Military bus protocol testing
21	Signal integrity test
22	Power integrity test
23	Usability test
24	Security test
25	Performance test
26	Connectivity test
27	Regulatory test
28	Specific absorption test
29	Passive component test
30	Microwave component test
31	Beamforming system design and test
32	Simulation of RF to test interference
33	Active component test
34	Emitter tests
35	Communication protocols testing for:
a	Wi-Fi – IEEE 802.11
b	Blue tooth
c	Zigbee – IEEE 802.15.4
d	Z-Wave
e	IPV6 Low Power Wireless Personal Area Network (6LoWRAN) – IEEE802.15.4
f	RFID
g	Cellular – GSM/GPRS/EDGE (2G)/HSPA (3G)/LTE (4G)

S No	Type of tests
h	Narrow band IoT
i	5G
j	Long Range Wide Area Network (LoRAWAN)
36	IoT tests
37	Smart power test
38	SDR tests
39	S-parameter characterization
40	Battery testing