

**PUNJAB MUNICIPAL INFRASTRUCTURE DEVELOPMENT COMPANY, CHANDIGARH  
DEPARTMENT OF LOCAL GOVERNMENT, PUNJAB**

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**Memo. No. PMIDC/SWM/2022/5807**

**Dated:08.08.2023**

**EXPRESSION OF INTEREST (EOI)**

**FOR PROVIDING TECHNICAL SOLUTIONS TO HANDLE DRY WASTE  
IN URBAN LOCAL BODIES HAVING POPULATION BELOW ONE LAKH IN  
PUNJAB STATE (INDIA)**

Punjab Municipal Infrastructure Development Company (PMIDC), Chandigarh invites Eoi from the eligible agencies for providing technical solutions to handle Dry Waste in Urban Local Bodies having population below one lakh. The detailed proposals from solution providers, startups, future technology vendors **to design and develop robust solutions for managing dry waste in Punjab**. The last date for submission of detailed proposal is **31<sup>st</sup> August, 2023 by 5 PM**. The details may be obtained from PMIDC website- <https://pmidc.punjab.gov.in/>. The proposals can be submitted online at [swm.pmidc@gmail.com](mailto:swm.pmidc@gmail.com) or by post on Room No.505, 5<sup>th</sup> Floor, PMIDC, Punjab Municipal Bhawan Sector-35.Chandigarh, 160022.

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Chief Engineer (SWM/SBMU)  
PMIDC, Chandigarh

8/8/2023

# Expression of Interest for providing technical solutions to handle Dry waste in Urban Local Bodies below population of one Lakh

*PMIDC wishes to invite proposals from solution providers, start-ups, future technology vendors to design and develop robust solutions for managing municipal dry waste in Urban areas of Punjab.*

Office of Chief Executive Officer,  
PMIDC, SECTOR 35-A, CHANDIGARH

## **EXPRESSION OF INTEREST (EOI) FOR TACKLING DRY WASTE GENERATED IN THE URBAN LOCAL BODIES IN PUNJAB**

### **1. Background**

Government of India (GoI) notified Rules on Solid Waste Management and Plastic Waste Management in 2016. These Rules mandate segregation of waste at source by a generators, integration of the informal sector into existing systems and waste processing. The Rules also outline that cities should become zero-waste to landfill in the near future, establish material recovery facilities (processing units) and enforce ban on single-use plastics items according to the Plastic Waste Management Rules 2016 and as amended time to time.

Punjab has made significant progress in handling legacy waste under the Swachh Bharat Mission (SBM) by remediating waste dumpsites in more than 65 cities and target for achieving the 148 ULBs by March 2025. Apart from reclaiming the legacy waste, there are advanced plans to establish two (2 nos) Waste to Energy Plants (14MW each) at Amritsar and Ludhiana along with 17 Bio-methanation/Bio CNG Plants in the state under SBMU.

An estimate of approx. 4100 TPD solid waste is generated in all 166 ULBs of Punjab of which total Dry waste quantum is estimated to be around 1650 TPD. The quantum of plastic waste in the dry waste is estimated between 8 to 10 % annually. There have been successful pilots tested by ULBs in utilizing the dry waste (plastics specifically) as construction material in laying public roads and sidewalks and channelization through two recycling agencies. There is certainly a need to explore economic value in reusing and recycling the dry waste components including Multilayer Plastics (MLPs) & thermocol packaging which lack finding recycling solutions due to both poor market linkages and possible financial incentives.

Since establishing waste to energy plants are a capital-intensive project which requires high volume of waste quantum and land demand which reduces the viability for executing this solution in small to medium ULBs with population size less than 100,000. At present, 150 ULBs out of total 166 ULBs fall in this category (<1 lakh pop), hence proposals for these ULBs which are **low cost sustainable, scalable and demonstrate waste to value preposition** will be preferred.

### **Present Process flow for Channelization and Processing of Dry waste**

A total of 266 Material Recovery Facilities have been set up in the ULBs of Punjab. All the MRFs are semi mechanized equipped with bailing machines. The dry waste collected is further segregated at micro-level in different categories and the recyclables are directly sold to the Junk

dealers. The remaining dry waste mainly MLPs is baled with bailing machines and is sold to private vendors for recycling purposes.

### **Key Challenges**

- The disposal of commercially non-recyclables wastes including textile waste/rags, leather waste/rubber waste etc.
- The end of life disposal of waste which is not practically feasible to be segregated and process rejects
- The disposal of RDF produced after Bioremediation of Legacy waste as there is no Cement Kiln in Punjab.

## **2. Objective**

To tackle the challenges in bringing Dry waste (non-biodegradable in nature) to circular economy loops for comprehensive management of waste collected at MRF's and RRR centers, PMIDC is keen to onboard solution providers, start-ups and innovators and waste management enterprises for safe processing and safe disposal of commercially non-recyclable dry waste including MLPs.

The objective will also be to identify potential sustainable solutions which are scalable for small to large size urban local bodies their potential waste collection quantum. The solutions should infuse the concept of waste to-wealth specifically for low-value recyclables, which are usually difficult to segregate economically, are now being brought into circular economy loop rather than entering the environment.

## **3. Scope**

Dry waste by definition includes a range of materials each having different economic value for waste recyclers and coverage of EPR for PIBOs. Hence, there is a need to scope out solutions which could provide unified solutions for range of dry waste together and can be scaled up. The solutions should include addressing waste specifically in form of multi-layer plastic (MLP), Thermocol, textile and cosmetic waste, tyres and rubber waste generated from households. The scope includes to propose a low-cost sustainable technological solutions for handling, processing of dry waste in the ULBs in line with Solid Waste Management Rules 2016 and directions of NGT issued from time to time. The output of processing should be non-polluting and meet standards prescribed by Pollution Control Board. The approximate quantum of dry waste generated by each ULB is annexed at Annex-A. Any agency/enterprise/ solution providers/ start-ups/ future technology vendors etc. having an innovative idea to handle dry waste/RDF are also encouraged to submit EoI. It's advised that all the proposals submitted should bring evidences backed documents to authenticate their solution by CPCB/PPCB.

The uptake of any solution relies on financial sustainability and overcoming market entry barriers, hence to scope out successful solutions it would be important to outline minimum viable

product and requirements for public investment to support such solutions. This would be pivotal to make the selections of right solution.

#### **4. Selection criteria**

PMIDC will constitute a selection committee which will be reviewing the proposals. This committee will comprise of State Mission Director (SBMU), SWM/PWM Experts, Subject Expert from Punjab Pollution Control Board and Senior Officials from Department of Local Government.

An initial assessment of the proposals will be conducted by the screening committee to shortlist leading innovative solutions applicant which will be called in for interviews and presentation by the selection committee.

#### **5. Timelines**

All the interested applicants are requested to adhere to the following timelines:

| <b>Detail</b>   | <b>Timeline</b>         |
|---|-------------------------|
| Call for EoI  | T <sub>0</sub>          |
| Early market Engagement with perspective participants | T <sub>0</sub> +10 days |
| Submission of Proposals                               | T <sub>0</sub> +21 days |
| Shortlisted application by screening committee        | T <sub>0</sub> +30      |
| Final Jury presentation with Selection Committee      | T <sub>0</sub> +35      |
| Announcement of final                                 | T <sub>0</sub> +40      |

### Annexure 1: ULB wise Dry waste collection

| <b>ULB wise Dry Waste Generation</b> |                 |                  |                                  |
|--------------------------------------|-----------------|------------------|----------------------------------|
| <b>S. No.</b>                        | <b>District</b> | <b>ULB</b>       | <b>Dry Waste Collected (MTD)</b> |
| 1                                    | Amritsar        | Ajnala           | 2                                |
| 2                                    | Amritsar        | Jandiala Guru    | 3                                |
| 3                                    | Amritsar        | Majitha          | 2                                |
| 4                                    | Amritsar        | Raja Sansi       | 2                                |
| 5                                    | Amritsar        | Ramdass          | 1                                |
| 6                                    | Amritsar        | Rayya            | 2                                |
| 7                                    | Barnala         | Barnala          | 15                               |
| 8                                    | Barnala         | Bhadaur          | 2                                |
| 9                                    | Barnala         | Dhanaula         | 2                                |
| 10                                   | Barnala         | Handiaya         | 1                                |
| 11                                   | Barnala         | Tapa             | 2                                |
| 12                                   | Bathinda        | Bhagta Bhai      | 2                                |
| 13                                   | Bathinda        | Bhai Roopa       | 2                                |
| 14                                   | Bathinda        | BhuchoMandi      | 2                                |
| 15                                   | Bathinda        | Goniana          | 2                                |
| 16                                   | Bathinda        | Kotfatta         | 1                                |
| 17                                   | Bathinda        | Kotha Guru       | 1                                |
| 18                                   | Bathinda        | KotShamir        | 1                                |
| 19                                   | Bathinda        | Lehra Mohabbat   | 1                                |
| 20                                   | Bathinda        | Maluka           | 1                                |
| 21                                   | Bathinda        | Maur             | 3                                |
| 22                                   | Bathinda        | Mehraj           | 2                                |
| 23                                   | Bathinda        | Nathana          | 1                                |
| 24                                   | Bathinda        | Raman            | 2                                |
| 25                                   | Bathinda        | Rampura Phul     | 6                                |
| 26                                   | Bathinda        | Sangatmandi      | 1                                |
| 27                                   | Bathinda        | Talwandisabo     | 2                                |
| 28                                   | Faridkot        | Faridkot         | 11                               |
| 29                                   | Faridkot        | Jaitu            | 4                                |
| 30                                   | Faridkot        | Kotkapura        | 12                               |
| 31                                   | Fatehgarh Sahib | Amloh            | 2                                |
| 32                                   | Fatehgarh Sahib | BassiPathana     | 2                                |
| 33                                   | Fatehgarh Sahib | Khamano          | 1                                |
| 34                                   | Fatehgarh Sahib | Mandi Gobindgarh | 10                               |
| 35                                   | Fatehgarh Sahib | Sirhind          | 7                                |
| 36                                   | Fazilka         | Arniwala         | 1                                |
| 37                                   | Fazilka         | Fazilka          | 9                                |
| 38                                   | Fazilka         | Jalalabad        | 4                                |
| 39                                   | Ferozepur       | Ferozepur        | 14                               |
| 40                                   | Ferozepur       | Guru Harsahai    | 2                                |

Inviting Proposals for providing technical solutions to handle Dry Waste in ULBs < 1Lakh Population

| <b>ULB wise Dry Waste Generation</b> |                 |                   |                                  |
|--------------------------------------|-----------------|-------------------|----------------------------------|
| <b>S. No.</b>                        | <b>District</b> | <b>ULB</b>        | <b>Dry Waste Collected (MTD)</b> |
| 41                                   | Ferozepur       | Makhu             | 2                                |
| 42                                   | Ferozepur       | Mallanwala        | 2                                |
| 43                                   | Ferozepur       | Mamdot            | 1                                |
| 44                                   | Ferozepur       | Mudki             | 1                                |
| 45                                   | Ferozepur       | TalwandiBhai      | 2                                |
| 46                                   | Ferozepur       | Zira              | 4                                |
| 47                                   | Gurdaspur       | Dera Baba Nanak   | 1                                |
| 48                                   | Gurdaspur       | Dhariwal          | 2                                |
| 49                                   | Gurdaspur       | Dina Nagar        | 2                                |
| 50                                   | Gurdaspur       | Fatehgarh Churian | 1                                |
| 51                                   | Gurdaspur       | Gurdaspur         | 9                                |
| 52                                   | Gurdaspur       | Quadian           | 2                                |
| 53                                   | Gurdaspur       | Sri Hargobindpur  | 1                                |
| 54                                   | Hoshiarpur      | Dasuya            | 2                                |
| 55                                   | Hoshiarpur      | Garhdiwala        | 1                                |
| 56                                   | Hoshiarpur      | Garhshankar       | 2                                |
| 57                                   | Hoshiarpur      | Hariana           | 1                                |
| 58                                   | Hoshiarpur      | Mahilpur          | 1                                |
| 59                                   | Hoshiarpur      | Mukerian          | 3                                |
| 60                                   | Hoshiarpur      | Shamchurasi       | 1                                |
| 61                                   | Hoshiarpur      | Talwara           | 2                                |
| 62                                   | Hoshiarpur      | UrmarTanda        | 2                                |
| 63                                   | Jalandhar       | Adampur           | 2                                |
| 64                                   | Jalandhar       | Alawalpur         | 1                                |
| 65                                   | Jalandhar       | Bhogpur           | 2                                |
| 66                                   | Jalandhar       | Bilga             | 1                                |
| 67                                   | Jalandhar       | Goraya            | 2                                |
| 68                                   | Jalandhar       | Kartarpur         | 2                                |
| 69                                   | Jalandhar       | LohianKhas        | 1                                |
| 70                                   | Jalandhar       | Mehatpur          | 1                                |
| 71                                   | Jalandhar       | Nakodar           | 4                                |
| 72                                   | Jalandhar       | Nurmahal          | 2                                |
| 73                                   | Jalandhar       | Phillaur          | 2                                |
| 74                                   | Jalandhar       | Shahkot           | 2                                |
| 75                                   | Kapurthala      | Begowal           | 1                                |
| 76                                   | Kapurthala      | Bhulath           | 1                                |
| 77                                   | Kapurthala      | Dhilwan           | 1                                |
| 78                                   | Kapurthala      | Nadala            | 1                                |
| 79                                   | Kapurthala      | Sultanpur Lodhi   | 2                                |
| 80                                   | Ludhiana        | Doraha            | 2                                |
| 81                                   | Ludhiana        | Jagraon           | 8                                |
| 82                                   | Ludhiana        | Khanna            | 16                               |

Inviting Proposals for providing technical solutions to handle Dry Waste in ULBs < 1Lakh Population

| <b>ULB wise Dry Waste Generation</b> |                 |                    |                                  |
|--------------------------------------|-----------------|--------------------|----------------------------------|
| <b>S. No.</b>                        | <b>District</b> | <b>ULB</b>         | <b>Dry Waste Collected (MTD)</b> |
| 83                                   | Ludhiana        | Machiwara          | 2                                |
| 84                                   | Ludhiana        | Maloud             | 1                                |
| 85                                   | Ludhiana        | MullanpurDakha     | 2                                |
| 86                                   | Ludhiana        | Payal              | 1                                |
| 87                                   | Ludhiana        | Raikot             | 3                                |
| 88                                   | Ludhiana        | Sahnewal           | 2                                |
| 89                                   | Ludhiana        | Samrala            | 2                                |
| 90                                   | Malerkotla      | Ahmedgarh          | 3                                |
| 91                                   | Malerkotla      | Amargarh           | 1                                |
| 92                                   | Malerkotla      | Malerkotla         | 17                               |
| 93                                   | Mansa           | Bareta             | 2                                |
| 94                                   | Mansa           | Bhikhi             | 2                                |
| 95                                   | Mansa           | Boha               | 1                                |
| 96                                   | Mansa           | Budhlada           | 2                                |
| 97                                   | Mansa           | Joga               | 1                                |
| 98                                   | Mansa           | Mansa              | 10                               |
| 99                                   | Mansa           | Sardulgarh         | 2                                |
| 100                                  | Moga            | BadhniKalan        | 1                                |
| 101                                  | Moga            | Baghapurana        | 2                                |
| 102                                  | Moga            | Dharamkot          | 2                                |
| 103                                  | Moga            | Fatehgarh Panjtoor | 1                                |
| 104                                  | Moga            | Kot isse Khan      | 1                                |
| 105                                  | Moga            | Nihal Singh Wala   | 1                                |
| 106                                  | Mohali          | Banur              | 2                                |
| 107                                  | Mohali          | DeraBassi          | 2                                |
| 108                                  | Mohali          | Kharar             | 9                                |
| 109                                  | Mohali          | Kurali             | 3                                |
| 110                                  | Mohali          | Lalru              | 2                                |
| 111                                  | Mohali          | NayaGaon           | 6                                |
| 112                                  | Mohali          | Zirakpur           | 12                               |
| 113                                  | Muktsar         | Bariwala           | 1                                |
| 114                                  | Muktsar         | Gidderbaha         | 5                                |
| 115                                  | Muktsar         | Malout             | 10                               |
| 116                                  | Muktsar         | Muktsar            | 15                               |
| 117                                  | Nawanshar       | Balachaur          | 2                                |
| 118                                  | Nawanshar       | Banga              | 2                                |
| 119                                  | Nawanshar       | Nawanshahr         | 6                                |
| 120                                  | Nawanshar       | Rahon              | 2                                |
| 121                                  | Pathankot       | Narot Jaimal Singh | 1                                |
| 122                                  | Pathankot       | Sujanpur           | 3                                |
| 123                                  | Patiala         | Bhadson            | 1                                |
| 124                                  | Patiala         | Ghagga             | 1                                |

Inviting Proposals for providing technical solutions to handle Dry Waste in ULBs < 1Lakh Population

| <b>ULB wise Dry Waste Generation</b> |                 |                |                                  |
|--------------------------------------|-----------------|----------------|----------------------------------|
| <b>S. No.</b>                        | <b>District</b> | <b>ULB</b>     | <b>Dry Waste Collected (MTD)</b> |
| 125                                  | Patiala         | Ghanaur        | 1                                |
| 126                                  | Patiala         | Nabha          | 8                                |
| 127                                  | Patiala         | Patran         | 3                                |
| 128                                  | Patiala         | Rajpura        | 12                               |
| 129                                  | Patiala         | Samana         | 6                                |
| 130                                  | Patiala         | Sanaur         | 2                                |
| 131                                  | Roopnagar       | Anandpur Sahib | 2                                |
| 132                                  | Roopnagar       | Chamkaur Sahib | 1                                |
| 133                                  | Roopnagar       | Kiratpur       | 1                                |
| 134                                  | Roopnagar       | Morinda        | 2                                |
| 135                                  | Roopnagar       | Nangal         | 6                                |
| 136                                  | Roopnagar       | Ropar          | 6                                |
| 137                                  | Sangrur         | Bhawanigarh    | 2                                |
| 138                                  | Sangrur         | Cheema         | 1                                |
| 139                                  | Sangrur         | Dhuri          | 6                                |
| 140                                  | Sangrur         | Dirba          | 2                                |
| 141                                  | Sangrur         | Khanauri       | 1                                |
| 142                                  | Sangrur         | Lehragaga      | 2                                |
| 143                                  | Sangrur         | Longowal       | 2                                |
| 144                                  | Sangrur         | Moonak         | 2                                |
| 145                                  | Sangrur         | Sangrur        | 11                               |
| 146                                  | Sangrur         | Sunam          | 8                                |
| 147                                  | Tarn Taran      | Bhikhi Wind    | 2                                |
| 148                                  | Tarn Taran      | Khemkaran      | 1                                |
| 149                                  | Tarn Taran      | Patti          | 4                                |
| 150                                  | Tarn Taran      | Tarntaran      | 8                                |