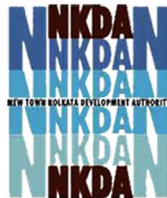


# **New Town Kolkata Development Authority**

## **REQUEST FOR PROPOSAL FOR SUPPLY INSTALLATION AND OPERATION OF SESOR BASED WASTE BIN MANAGEMENT SYSTEM IN NEW TOWN KOLKATA**

(Submission through online only)

**Request for Proposal (RFP) No: WBNKDA/02/RFP/EE-I/NKDA/2020-21**



New Town Kolkata Development Authority  
03, Major Arterial Road  
Kolkata – 700156

## **A. BACKGROUND**

New Town Kolkata is a planned newly developed green field satellite city on the north-eastern fringes of Kolkata in the district of North 24 Parganas in West Bengal. The city has a coverage area of 30 km<sup>2</sup> and with a planned population of 10,00,000.

Being a planned and “green” city, the existing settlements have been kept undisturbed and suitably integrated into the proposed land use as wetlands and low-lying areas have been designated as open spaces. One of the key USPs towards the development is the flexible planning approach. New Town has been developed in three planning units for phased Implementation of the plan, referred to as Action Area-I, II, III. There are three action areas where the development is planned. Additionally, there is designated Central Business District (CBD). Main administrative and commercial functions have been placed at CBD located at the center of the city.

New Town Planning Area shows that residential area covers maximum 40.17% followed by commercial area of 10.14%. IT and ITES has been allotted 4.73%. Social infrastructure areas have been allocated 10.07% and open spaces 14.06%. Commercial, IT and ITES land use has been placed in the centre of the city around which residential land use is distributed.

The city provides best in class urban infrastructure facility and government service delivery to its citizens while preserving the cultural heritage of West Bengal. Over the last few years, the city has achieved world class basic / core infrastructure facilities.

New Town is a Smart City under the Smart City Mission of Government of India.

With increasing commercial and cultural activities in the town timely removal and cleaning of wastes is becoming an important issue calling for immediate attention of the authorities and smart intervention as soon as possible.

## **B. OBJECTIVE**

In its endeavor to become a state-of-the-art modern town, New Town Kolkata Development Authority (NKDA) intends to have a smart dustbin monitoring system for 50 selected dustbins to ensure real-time monitoring of the dustbins 24x7.

Hence, NKDA intends to engage an agency for supply, installation, deployment, testing and maintenance of a dustbin monitoring system by retrofitting 50 (fifty) selected dustbins of 240 litre capacity each in New Town Kolkata.

The system will be deployed for real time monitoring of 50 dustbins of 240 litre capacity each with the following features:

- a. Level sensing of garbage to throw alert on 75% filling up or as desired;
- b. Plug and play monitoring devices to be fitted in 50 existing dustbins of 240 litre capacity each as identified by NKDA;
- c. Devices are to be protected to endure external elements in open environment such as rain, temperature fluctuation in Kolkata climate, direct sun light and minor physical shocks due to throwing of garbage in the bins;
- d. Notification via SMS and on dashboard to the SWM team;

- e. Garbage level of every dustbin displayed in the dashboard via cloud server;
- f. Wireless operation, sturdy and with battery life of at least 2 years;
- g. Retrofitting possible and comes as a plug and play solution;
- h. Web based system accessible to the NKDA administration from the ICCC for monitoring;
- i. Complete analysis of the dustbin- Time when filled and time when cleaned (Efficiency Tracking);
- j. Downloadable Reports must be available;
- k. Fault indication to Nodal Officer from NKDA (low battery, overflowing bin);
- l. Prediction about dustbin status- Time remaining to be filled up, Rate of cleaning etc.

### **C. SCOPE OF WORK**

New Town Kolkata proposes to onboard an agency for supply, installation, deployment, testing and maintenance of a dustbin monitoring system by installation in 50 selected existing dustbins each of 240 litres capacity in New Town.

The key objectives include:

#### **A. Objective:**

- a. Fitting sensor-based dust bin monitoring devices in 50 selected existing dust bins each of 240 litre capacity;
- b. The system should be capable of generating centralized reports from a centralized system as well as SMS alerts covering the following:
  - i. Time to fill up
  - ii. Filled up alert
  - iii. Smart reports with time to fill up and time till fill up
  - iv. Rate of cleaning
  - v. Battery life remaining
- c. Design, develop, testing, deployment followed by maintenance for 3 (three) years of a Solution (web based & Mobile App) for Dustbin Status Monitoring;
- d. Integration of the dustbin monitoring system;
- e. Provide Server requirement specification;
- f. Integration with ICCC (Integrated Command & Control Centre) for real time monitoring;
- g. Provision for scale up of the system to cover all the outdoor bins at New Town.

#### **B. Key activities envisaged under this initiative are as represented below:**

1. Site Inspection and jointly identify 50 (fifty) dustbins where the impact of fitting the sensor-based systems will be the highest;
2. Develop and install the backbone software in the server identified by NKDA, including test run. Deployment of the system for selected sites as indicated by the client;
3. Internet connectivity to the onsite devices as necessary to be arranged by the Vendor;
4. Trial run of the system for two weeks;
5. Second round of testing post live trial;
6. Addressing glitches;
7. Go live;
8. Training of users/ administrators;

9. Supply, installation and testing of the sensor-based monitoring system integrated with the supporting software in the 50 identified dustbins to the satisfaction of NKDA;
10. Integration with the ICCC system;
11. Open API to be provided for integration with any systems as decided by NKDA;
12. Maintenance (hardware as well as software) including learning if any of the system for 3 years post go live of the system;
13. Development of a SOP and maintenance schedule;
14. Training of the NKDA SWM officials in operation and maintenance of the system.

#### 15. **Maintenance**

Maintenance of the entire system for three years post deployment including minor customizations as may be required and mutually agreed upon. During maintenance period the system should be up for 99.9% time and there will be a Service Level Agreement (SLA) with provision for penalty of 1% of annual maintenance cost for each hour of unscheduled downtime if not addressed within 1 hour of intimation.

In the post deployment maintenance phase, preventive maintenance should be done by the agency for which a quarterly schedule should be prepared and submitted to the client in advance.

#### 16. **Hosting of Application**

Application to be hosted in in appropriate Ministry of Electronics approved cloud server with approval of the client. Cost of hosting for 45 days in the development phase followed by three years in the maintenance phase to be included in the amount quoted in the bid. The hosting facility will be in the name of NKDA.

#### C. **Deliverables**

Devices with required features, High Level Design Diagram, Preventive maintenance schedule, Source Code, Internet Connectivity at site, Training Manual.

#### D. **PAYMENT MILESTONE**

Sl. No.	Action Item	Payment	Timeline
1	<b>Full scale Supply, Installation, testing and Deployment and demonstration of operation of devices as well as software (full system) with completion of UAT</b>	<b>50%</b>	<b>T+30 days</b>
2.	<b>Operation and maintenance of the system to the satisfaction of NKDA</b>	<b>1/36 part of the rest 50%</b>	<b>End of each month of satisfactory performance of all 50 bins.</b>

\*T is the starting date of the project

\*\* Payment will be released based on successful completion of all events as mentioned in the scope of work and documented and raising of invoice subject to statutory deductions as applicable.  
\*\*\* There will be a penalty of 1% of the Development Phase cost per day beyond 50 days after start date if not deployed full scale.

#### **E. ELIGIBILITY**

- a) The bidder should be a company registered under the Indian Companies Act 1956/2013;
- b) Should have average annual turnover of at least Rs.50 (Fifty) Lakh during the last three Financial Years (2017-18, 2018-19, 2019-20);
- c) Should have demonstrated experience in sensor-based dustbin monitoring in a town wherein dustbins placed outdoors are monitored through retrofitted sensors.
  - i. Credential certificate issued by the Executive Engineer or equivalent or competent authority of a state/central Government, state/ central Government undertaking statutory/ Autonomous bodies constituted under the central/ state statute, will be taken as credential.
  - ii. In case of a corporate client this credential should be issued by a member of the board of directors/partner of the client on his letterhead.
  - iii. In case of experience with a corporate client, the work order/agreement bearing the payment terms along with a full and final payment certificate issued by a Chartered Accountant on his Letter head will be accepted as a certificate of credential.
- d) Should have office in Kolkata region to be substantiated with submission of copy of address proof like electricity bill/trade license/postpaid telephone bill. Otherwise an undertaking should be submitted that representative office will be set up in Kolkata within 30 days of receiving the Letter of Intent.
- e) Intending Tenderer must be financially sound with a minimum average turnover of Rs.50 lakh (Rupees fifty lakh only) during the last three financial years (FY 2017-18, 2018-19, 2019-20) and having a trade license, G.S.T Registration certificate and Profession Tax certificate.
- f) PAN Card, Income Tax Return Acknowledgement Receipt for the last 03 (Three) Assessment years, P.T. Deposit Challan for the year 2019-20.
- g) Registered Partnership Deed for Partnership Firms only along with Power of Attorney since executed under any Judicial Magistrate/First Class Magistrate is to be submitted. The company shall furnish the Article of Association and Memorandum as on-statutory documents.
- h) Joint Venture or consortium is not allowed in this tender.
- i) Three consecutive years' (2017-18, 2018-19,2019-20) Audited Accounts to be submitted along with Tender documents.
- j) Provided that start up organizations registered with Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry will be exempted from Earnest Money Deposit. To avail this exemption, the evidence of registration with DIPP as startup must be submitted.
  - i. In case of such bidders, the minimum turnover clause is also exempted.

- ii. In case of such registered startups, if they are the developers and manufacturers (including assembling) of the system then the project experience clause may also be exempted provided that the technology should be made readily available to NKDA and the payment terms will start after 45 days of successful operation of the system as follows:

Payment terms for startup agencies without demonstrated experience but are the OEM for the devices:

SL. NO.	ACTION ITEM	PAYMENT	TIMELINE
1	Full scale Supply, Installation, testing and Deployment and demonstration of operation of devices as well as software (full system) with completion of UAT	50%	T+75 days
2.	Operation and maintenance of the system to the satisfaction of NKDA	1/36 part of the rest 50%	End of each month of satisfactory performance of all 50 bins.

#### F. EVALUATION METHOD

1. The technical eligibility will be determined by the tender inviting authority and their decision is final.
2. Final selection will be based on least cost method. That is the technically eligible bidder offering the lowest financial quote will be selected as the implementation agency subject to fulfillment of all other terms and conditions.

#### G. GENERAL TERMS AND CONDITIONS

Executive Engineer I, New Town Kolkata Development Authority invites proposals from eligible agencies bids in two-part system for the work as described in the list of schemes below.

##### List of Scheme:-

Name of work	Token Earnest Money (Rs.)	Price of Tender documents (Rs.)	Period of engagement
Supply installation and operation of sensor-based waste bin management system in New Town Kolkata	Rs.10,000/- (Rupees ten thousand only)	As will be specified by the authority for each set, to be paid only by the successful bidder during the time of agreement	75 (seventy-five) days plus 3 years of post-deployment maintenance of software and hardware

1. The details of the scope of work is provided in the section of Scope of Work of this tender document.
2. In the event of e-filing, intending bidder should download the tender documents from the website <http://wbtenders.gov.in> directly with the help of Digital Signature Certificate.
3. All the bidder shall have to submit earnest money & necessary earnest money will be deposited by the bidder through the following payment mode as finance dept. order no-3975-F (Y) dated 28th July 2016
  - a) Net banking (any of the banks listed in the ICICI Bank payment gateway in case of payment through ICICI payment gateway).
  - b) RTGS/NEFT through bank account in any bank. The EMD shall be deposited in favor of “New Town Kolkata Development Authority” payable at Kolkata.
4. Technical and Financial bids are to be submitted duly digitally signed in the website <https://wbtenders.gov.in>. The acceptance of bid is not obligatory.
5. In the financial bid, the bidders will quote the rates excluding taxes and levies. This information should be filled up at the appropriate space in the BOQ file. Disclosure of quotes rates at in any other document will lead to disqualification of the bidder.
6. Corrigendum, further notices and responses to queries if any will be published in the website <https://wbtenders.gov.in> at the appropriate section.
7. Tender documents may be downloaded from website and submission of Technical Bid and Financial Bid will be done as per Time Schedule of this RFP.
8. The selection will be through a least cost based system among eligible bidders
9. In term of Finance Department, Audit Branch, Govt. of West Bengal’s Notification no.4374-F(Y) dated 13th July, 2017, the bidder has to uploaded valid 15-digit Goods and Service Taxpayer Identification Number (GSTN) under GST Act, 2017, along with his bid. The bidder should note that bid submitted without GSTIN will be summarily rejected
10. The Earnest Money Deposit of Rs.10,000 (Rupees ten thousand only) will be converted to Security Deposit for the selected agency.
11. Intending Tenderer must be financially sound with a minimum average turnover of Rs.50 lakh, (Rupees fifty lakh only) during the last three financial years (FY 2017-18, 2018-19,2019-20 ) and having a trade license, G.S.T Registration certificate and Profession Tax certificate.
12. PAN Card, Income Tax Return Acknowledgement Receipt for the last 03 (Three) Assessment years, P.T. Deposit Challan for the year 2019-20
13. Registered Partnership Deed for Partnership Firms only along with Power of Attorney since executed under any Judicial Magistrate/First Class Magistrate is to be submitted. The company shall furnish the Article of Association and Memorandum as on-statutory documents.
14. Joint Venture or consortium is not allowed in this tender.
15. Three consecutive years’ (2017-18, 2018-19,2019-20) Audited Accounts to be submitted along with Tender documents.
16. Fund for this project will be made available from the Smart City Mission by the New Town Kolkata Green Smart City Corporation Limited.

- 17.** No claim for interest or compensation will be entertained in respect to any money or balance of payment which may be due or alleged to be due to the agency owing to any dispute between the contractor and NKDA or in respect to any delay in making payment of progressive or final bill of the work, to the contractor.
- 18.** No advance and secured advance will be considered.
- 19.** Idle labor, idle rent and hire charges etc.:  
No claim of any category and type, on this ground shall be entertained. The contractor and NKDA shall make every effort that such situation does not arise.
- 20.** Security Deposit:  
Earnest Money for the successful tenderer will be retained and converted to Initial Security deposit.
- 21.** Income Tax & G.S.T & all other taxes will be deducted as per Govt. orders issued from time to time and would be applicable on the date of making payment of the bills.
- 22.** The Bidder, at his own responsibility and risk is encouraged to visit and examine the town and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice Inviting Tender, before submitting offer with full satisfaction. The cost of visiting the site, shall be at his own expenses.
- 23.** The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Department. New Town Kolkata Development Authority reserves the right to accept or reject any offer without assigning any reason whatsoever and is not liable for any reimbursement of any cost that might have been incurred by any Tenderer at any stage of Bidding.
- 24.** Prospective applicants are advised to note carefully the minimum qualification criteria before tendering the bids.
- 25.** Conditional / Incomplete tender will not be accepted under any circumstances.
- 26.** During scrutiny, if it comes to the notice of the tender inviting authority that the credential or any other paper found incorrect / manufactured / fabricated, that bidder would not be allowed to participate in the tender and that application will be rejected without any prejudice.
- 27.** Before engagement, Tender Inviting Authority may verify the credential and other documents of the qualified tenderer if found necessary. After verification if it is found that the documents submitted by the tenderer is either manufactured or false in that case the said Tenderer will not be empaneled under any circumstances and his/their offer will be treated as cancelled.
- 28.** If any discrepancy arises between two similar clauses on different notification, the clause superseding others will be solely as per the discretion of the Tender inviting authority
- 29.** The successful Tenderer whose tender is accepted shall make formal agreement in WBF 2911 (ii) along with bid documents in triplicate, within 7 (seven) days from the date of issue of work order by Executive Engineer – I, New Town Kolkata Development Authority on payment of usual charges which is non-refundable under any circumstances and submit the same duly signed by him/them to this office. If the contractor fails to perform the formalities within the



specified period the Tender is liable to be cancelled and the Earnest Money will be forfeited as per relevant clauses under memorandum of WBF 2911(ii).

**30. Qualification criteria:**

- i. The tender inviting and Accepting Authority will determine the eligibility of each bidder. The bidders shall have to meet all the minimum criteria as stipulated in relevant clauses of this RFP.
- ii. The eligibility of a bidder will be ascertained on the basis of the document(s) submitted in support of the minimum criteria. If any document submitted by a bidder is either manufactured or false, in such cases the eligibility of the bidder / tenderer will be rejected at any stage without any prejudice to take any penal action against him/them as may be deemed fit by the Tender Accepting Authority.

**31.** The agency must have the capacity to engage professionals as directed by the EE I, NKDA.

**32.** Agencies are required to give a work programme preferably in the form of a bar- chart and to get it approved by the EE1 , NKDA before commencement of work and if progress of work abruptly differs from such work programme, the undersigned may terminate the work order at any point of time and penal action as per Tender Terms and conditions will be imposed.

**33.** Intending tenderer should note that he may have to work simultaneously with other contractors already entrusted with other work or with contractors to be entrusted with other work in future in the same function. The contractor will have to work in close co-operation and harmony with all the contractors engaged in the project. Any claim for idle labor, for any reason whatsoever, will not be entertained under any circumstances.

**34.** NKDA will not be held responsible for making payment against any anticipated profit and/or compensation for any losses or price escalation whatsoever for the works as stated in the annexure of this RFP. Rates should be quoted accordingly.

**35.** The address as furnished by the contractor shall be deemed as the postal address of this office. Any notice or instruction to be given to the contractor under the terms of contract shall be deemed to have been served if it has been delivered to his authorized agent (on the strength of authorization) or representative or sent by registered letter to his official address as furnished.

**36.** NKDA Authority have the right to accept, reject or modify the tender at any point of time without assigning any reason whatsoever.

**37.** Arbitration clause of WBF 2911(ii) stands deleted.

**38.** Participation in this tender deems that the applicant is fully agreeable to abide all terms and conditions as stated in this Notice Inviting e tender.

**39.** Mobilization advance, time / cost overrun and consequent cost escalation for any material, labor, etc. will not be allowed.

**40.** The offer shall remain valid for 180 days from the date of opening of the tender.

**41. Queries:** The last of submitting queries at: [ee1@nkda.in](mailto:ee1@nkda.in) is same as the date of pre-bid meeting.

## H. DATE AND TIME SCHEDULE

Sl. No.	Particulars	Date & Time
1	Date of uploading of RFP and other documents (online)	23/02/2021
2	Date, time and venue of pre bid meeting	01/03/2021 at 2.00 P.M. in NKDA Conference room of 01, MAR, New Town, Kolkata - 700156
3	Documents download start date (Online)	23/02/2021 from 5.30 P.M.
4	Documents download end date (Online)	10/03/2021 upto 5.30 P.M.
5	Bid submission start date (Online)	23/02/2021 from 5.30 P.M.
6	Bid Submission closing (Online)	10/03/2021 upto 5.30 P.M.
7	Bid opening date for Technical Proposals (Online)	12/03/2021 at 5.30 P.M.
8	Last date of uploading list for Technically qualified Bidder(online)	Will be intimated in due course
9	Bid opening date for Financial Proposals (Online)	Will be intimated in due course

**Executive Engineer–I  
New Town Kolkata Development Authority**

**Memo No:** 1432 /1(12) / NKDA / Engg -36 / 2010 (XI)      **Date:** 23/02/2021

Copy forwarded for information to:-

1. Chief Executive Officer , NKDA / NKGSCCL.
2. Chief Engineer, NKDA
3. Administrative Officer -II NKDA
4. Chief Finance officer, NKGSCCL
5. Chief Technical Officer, NKGSCCL
6. Finance Officer, NKDA
7. Assistant Engineer – I, NKDA
8. Estimator/ Sr. Accountant / Cashier, NKDA.
9. Project Director, NKGSCCL.
10. PA to Hon'ble Chairman, NKDA
11. Office Notice Board.
12. Official website of NKDA ([www.nkdamar.org](http://www.nkdamar.org)) & W.B. Govt. ([www.wbterdes.gov.in](http://www.wbterdes.gov.in)).

**Executive Engineer–I  
New Town Kolkata Development Authority**