Minutes of Meeting – Online Clarifications for ICT intervention Solid Waste Management System EOI, Karimnagar

Date: 11h Dec 2020

Location: Teleconference, KSCCL , Karimnagar

Attendees:

1	Rajinder Banyal, PMC
2	Rohit Roshan, PMC
3	Mohammed Shahwar, PMC
4	Array Networks
5	Convexicon India
6	Incubate Soft tech
7	Inspira Enterprises
8	ITS Planners and Engineers
9	KEC International
10	Netcon Technologies
11	Synergy Telematics Pvt Ltd

Minutes of Meeting Questions and Answers :

Question 1: In the Page 5 of BOM we have a load balancer qty1 and it is suggested to have 2 Nos to avoid single point of failure
Answer: KSCCL plans to have a Cloud based IT infrastructure solution for ICT-SWM project, hence a cloud-based redundant load balancer is envisaged

Question 2: In the page 21 the load balancer minimum specifications needs to be there and I have suggested the specifications
Answer: Basic load balancer specifications are mentioned in EOI, further details to be shared during RFP stage

Question 3: How is the managed service expected to be delivered ? Will it be Remote Services?
Answer: As all the IT infrastructure is Cloud based, KSCCL would need minimal resource to managed cloud services but for SWM application full time onsite deployment is envisaged

Question 4: We haven't seen any wholistic functional specification of the SWM software/system. Could you please include a high-level requirement so that we can offer a system according to the city requirement?
Answer: High level functional specifications shared in below section of this document (ICT enabled Solid Waste Management System – Software Functional specification)

Question 5: Is the solution intended for door to door garbage collection?
Answer: The solution envisaged is for Commercial establishments, however for door to door or otherwise, decision will be taken during RFP stage

Question 6: I wanted to confirm that we have to attach BOM only or something else is also to be attached with the scanned copy of EOI?
Answer: Please share BOM along with cost for each line items

Question 7: Is the solution to be RFID based or can a QR based solution can be considered?
Answer: Currently RFID based solution is envisaged for better performance and durability, however if QR can match RFID in terms of performance, benefits and durability, it can be finalized during RFP stage

Questions 8: What will be estimated household count for the installation of RFID tags
Answer: To be shared during RFP stage

Question 9: And estimated size of fleet?
Answer: Exact details to be shared during RFP stage, however majority vehicles have GPS system existing and hence integration will be a major part with existing GPS system

Question 10: What is the budget for this project?
Answer: 1.8 Cr as mentioned in EOI

Question 11: Will the consortium be allowed at the time of bidding?
Answer: Yes

Questions 12: Can we please know how many community bins there? and it will be scan with RFID tags or it will be reports from any other source like mobile app etc.

Answer: The current solution does not envisage community bins

Question 13: Request you to please extend the EOI submission date to 25.12.20
Answer: The extension may not be possible, unless there are unforeseen circumstances. Vendors have 5 days for preparing proposal after online clarification session

Question 14: I would like to know whether we need to supply only Handheld RFID Readers or vehicle Mounted RFID Readers as well for Compactors
Answer: Only handheld RFID readers envisaged for now

Question 15: How many transfer stations are there and load balancer are there for calculating the garbage dry and wet
Answer: Details to be shared during RFP stage

Question 16: Please provide the details of the existing systems such as weighbridge and GPS system to identify the integration process and costs associated with it.
Answer: Existing weigh bridge does not have any digital process and existing GPS system is operational in most vehicles, however integration information will be detailed during RFP stage

Question 17: What is the mode of attendance of Sanitation staff and other staff of Municipal Corporation. It is based via bio matric or mobile app with pictorial evidence
Answer: Currently Staff is using biometrics and this project does not include mobile app-based attendance solution

Question 18: Any idea on the volume of garbage collected on a daily basis
Answer: 160-170 MTD is generated for the city which includes garbage generated from commercial establishments of approximately 40 MTD

Question 19: What about the grievance of the citizen , it there any mobile app, and what is the TAT for the same.
Answer: Citizen grievance is not part of this project

ICT enabled Solid Waste Management System – Software Functional specification

The scope of work for the bidder will include supply, installation and implementation of GPS based tracking and monitoring system with RFID and GPS combined with integration with existing systems at KSCCL. Along with that, it will also include the post implementation support and maintenance of RFID tags, GPS Tracking and integration with weigh bridge solution. Design, Development, Supply and Implementation of Web Based Application software integrated with GPS, RFID devices and weighbridge application

The implementation agency shall provide End-to-End Solution to implement and to provide Support Services & Maintenance as per the list below:

1. Design, develop, supply and Implementation of "RFID tag for Collection Monitoring System"
    a. Monitoring of RFID tags installed on each establishment by RFID reader or scanner
    b. Design and integrate tracking of waste collection and monitoring System

2. Supply of Vehicle Tracking Unit (VTU) for MCK vehicles, installation, testing and commissioning, Vehicle route mapping and updates of the Portal & Hardware on Cloud

3. Design and Integrate Vehicle Tracking System for vehicle route plans, vehicle time scheduling, real-time positions and subsequent reports like those that total distance traversed, total rounds duration, etc.

4. The bidder is responsible for Weighbridge Integration. Weighbridge is to measure the input being carried into by the incoming vehicles as well as to check the produced output after the compost generation. The same shall be fed into the weighbridge software for processing data date wise, truck wise, shift wise, etc. This data shall be passed on to the application for day-to-day monitoring of waste and disposal and for generation of daily, weekly & monthly reports. Bidder is expected in movement of the existing civil structure of weigh bridge to the entrance gate from its existing location

5. The bidder is responsible for Network Analysis key functions which include:
    a. Establish a network with current GIS data.
    b. Produce travel network cost matrix.
    c. Define optimal facility positions using location allocation.
    d. Use time windows in vehicle scheduling.
    e. Determine shortest and fastest routes to travel and cover all locations.

6. Geocoding / surveying of the following potential components shall be done by the bidder
    a. Establishments
    b. Garbage Collection points
    c. Vehicle routes optimization
    d. Landfills/Dumping grounds
    e. Transfer stations
    f. Others (as per MCK request)

The accuracy of these locations should be 3 meters. The bidder shall use these locations over the maps and shall deliver the same to MCK in the pre-agreed formats or standards