



## **Expression of Interest(EoI) Notification.**

**HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD.**

**O/oThe Chief General Manager(Engg),**

Revenue Circle, Khairatabad,

Hyderabad-500004.

**EoI.No:01/HMWSSB/Revenue Circle/2022-23/1390 Dt: 31 -10-2022.**

**Calling "Expression of interest" for supply of Epos Spot Billing Machines and SBM-consumables such as printer ribbons and paper rolls to be used in the SBMs and IT Professionals and disconnection material for in Billing and collection work across all O&M Divisions of HMWSSB jurisdiction – Proposals (Quotations from interested firms) for arriving rates for preparation of estimate.**

### **Preamble:**

The Hyderabad Metropolitan Water Supply & Sewerage Board is supplying potable water to the citizens of twin cities, surrounding municipalities, corporations and Gram Panchayaths within ORR including Cantonment Board etc and has been catering to consumers numbering in excess of 12 lakhs and is increasing; the Board issues demand notices by way of monthly bills to the consumers and makes collection against such bills through various modes both digital and manual. As part of the manual billing means the Board employs the epos spot billing machines (SBMs) for issue of bills and making collections including at the consumers' door step. The Board intends to procure SBMs and SBM-consumables such as paper rolls and printer ribbons, through proper tendering process, to be issued to the Meter readers for making billing and collection transactions on the behalf of the Board; for the purpose the Board intends to float Expression of interest (EoI) to ascertain the rates of SBMs, SBM-consumables ie paper rolls & printer ribbons.

### **Scope of the Work:**

**A:** Supply and delivery of Epos Spot Billing Machines.

Supply and delivery of ePos machines of following specification including transportation and transit risk up to destination etc., complete as directed by the HMWSSB Officials.

### **Specifications:**

- 1 GHz High Speed Quad core 1 Processor
- Android 7.0 OS
- 8 GB Flash Memory Expandable up to 32 GB
- 1 GB SD RAM
- Real time clock with Battery backup
- 3.5" QVGA Touch display
- Built in 2" Impact Printer
- Built in GSM/GPRS/4G/Wifi
- Built in GPS & 8MP Rare camera for QR read
- Built in Bluetooth
- 30key Alpha numeric Keypad
- Device Lock Protection
- USB 2.0 OTG
- Built in Battery (5200 mAh-Li-Ion) and associated intelligent charging circuitry
- Rugged Polycarbonate Plastic case housing

- User manual, AC Adapter, Carrying case and associated cables.

**Two years manufacturer warranty, as directed by HMWSSB Officials**

**B:** Supply and delivery of SBM-consumables such as printer ribbons and paper rolls that are compatible for use in the SBMs - SBMs to conform to the specifications:

**I. Ribbon Cartridge for spot billing Machine (Epos Machine)**

**Specification:**

- a. Make: Epson, Japan/ Analogic Tech India or Equivalent
  - b. Model No: ERC-09/40
  - c. Material Wrap Yarn: ABS JET Blac(N17A)
  - d. Material Weft Yarn:ABS JET Blac(N17A)
  - e.Width :90.9mm
  - f. Height :24.9mm
  - g. Weight: 4.0g(0.25oz)
  - h.Ink absorbtion: 20-21%
  - i.Ribbon Seamless Ribbon
- etc, as directed by HMWSSB officials

**II. Epos Machine Rolls**

- a. Plain Rolls of 20 meters, as directed by HMWSSB Officials
- b. Pre-Printed (single Color Front & Black ) Rolls of 20 meters, as directed by HMWSSB Officials
- c. Pre-Printed (Multi Color Front & Black) Rolls of 20 meters, as directed by HMWSSB Officials

**C: IT professionals in the Data analytics field area.**

The scope of the project includes engaging a team of technical consultants to lend appropriate inputs to the officers and staff alike, by way of providing timely reports and data-related advise by delving into the business-data generated by the Board in regular business processes, such as Revenue billing system, Single Window system, Metro customer care etc using emerging and cutting-end technologies; the members team shall be experts in conceiving and coagulating new business ideas that are pragmatic and implementable in the Board scenario. The said resource-persons shall gain complete understanding of Business functions and processes of the HMWSS Board to evaluate the data generated therein and thereby apply technological tools over the data-bulk to infer useful information/reports and to afford digital perspective to the field officers that could be used in their duties for improving operational, managerial and strategic efficiencies. The outturn of the processes emerging from the inputs of the consultant- members shall be quantifiable and verifiable so as to justify the amounts to be spent on salaries of the said technical professionals.

Following Software experts shall be deployed by the agency into the Revenue data analysis –Subject matter experts(SME) unit:-

- a. Data scientist (Full Time) – 1 No.

The members, further are to be experts in the following tools, skill-level to be supported by certifications from the concerned software-manufacturer.

## Qualifications required for the proposed Team:

Sl.No	Designated Title	Job Responsibility	Eligibility Criteria
1	Data Scientist	<p>Work with all stakeholders to understand the business problem and translate it into an analytical problem</p> <ul style="list-style-type: none"> <li>* Expected to understand requirements of analytics use case, independently perform analysis, develop models, quality check, interpret results and present back to the stakeholders. Besides sound conceptual understanding and good programming skills, having a keen sense of business and interpreting the model outputs effectively is a key success criterion.</li> <li>* Lead the process of translating business objectives into problems that can be solved by applying data science</li> <li>* Design, optimize, and productize advanced analytics algorithms to address key business problems</li> <li>* Translate modelling results into actionable business insights</li> <li>* Perform exploratory data analysis, generate and test working hypothesis, and uncover important trends and relationships , ability to figure out the appropriate ML model to suit the requirement.</li> <li>* Provide expertise on mathematical / statistical concepts and inspire adoption of advanced analytics</li> <li>* Develop appropriate algorithms, test the quality and iterate till desired results are obtained</li> <li>* Extract analytical insights and translate them to business insights; validate the insights and continuously improve upon interpretation skills</li> <li>* Ensure coding as well as overall development best practices are implemented</li> <li>* Create intuitive and detailed documentation as appropriate</li> <li>* Contribute to collaboration and awareness in the global analytics community</li> </ul> <p><b>Knowledge, Skills And Abilities:</b></p> <ul style="list-style-type: none"> <li>* Proficiency in programming and scripting languages like Python, R, and SPSS is required; PySpark is a plus</li> <li>* Expertise in building statistical models including (but not restricted to) Linear Regression, Logistic Regression, Random Forest and time series modelling</li> <li>* Strong conceptual knowledge of Big Data technologies like Hadoop (Spark, Hive, Pig)</li> <li>* Familiarity with databases like MySQL, Oracle, SQL Server, NoSQL, etc. is desirable</li> <li>* Expertise in statistics, regression and classification models, machine learning techniques, NLP and Optimization techniques</li> </ul>	<p>B.Tech / B.E from IIT/IIIT/NIT/BITS preferable advanced degree in statistics/ AI/ Machine Learning/ Data Mining/ Big Data Analytics/ MBA in Data Analytics</p> <p>Minimum <b>Five + years of experience in a similar role</b> in Fortune 500 Companies</p>

		<p>* Passion for understanding the key drivers within a complex business, being able to assimilate multiple data points to diagnose complex problems and deliver practical solutions and recommendations.</p> <p>* Good written and oral communication, with the ability to communicate effectively with stakeholders</p>	
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**D: Supply and delivery of Disconnection consumables**

- 1.Plugging Material (CPVC for 1/2', 3/4'& 1' on average)
- 2.Doubled sided Hacksaw Blade with frame with 12 blades set
- 3.Supply and delievery of screw drivers,etc.
- 4.Supply and delievery of CPVC Solvent cement tube solution
- 5.Supply and delievery of jute bags for sewerage disconnection

The agencies/ firm/ Contractor/ suppliers shall submit their Quotations along with Contractor / Firm Registration and GST registration certificates for "**Expression of interest**" **Epos Spot Billing Machines and SBM-consumables such as printer ribbons and paper rolls to be used in the SBMs and IT Professionals and disconnection material for in Billing and collection work across all Divisions of HMWSSB jurisdiction**" through **online (email) [cgm-rev@hyderabadwater.gov.in](mailto:cgm-rev@hyderabadwater.gov.in)** **(or) offline** with all mandatory documents along with financial proposals in sealed covers to the Chief General Manager(Engg),Revenue Circle, HMWSSB, Administrative Building, rear block, Khairatabad, Hyderabad-4, during office hours on or before the due date. ie 03.00 PM on 04.11.2022 and will be opened on the same day.

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**Chief General Manager (Engg),  
Revenue Circle, HMWSSB.**

**HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD.**

**EoI.No:01/HMWSSB/Revenue Circle/2022-23/1390 Dt: 31-10-2022**

**1. Financial Proposal for Epos Spot Billing Machine**

<b>S.No</b>	<b>Item Description</b>	<b>Qty</b>	<b>Rate (Rs.)</b>	<b>Unit</b>	<b>Total Amount (Rs.)</b>
	<p>Supply and delivery of Epos machines of following specification including transportation and transit risk up to destination etc., complete as directed by the HMWSSB Officials.</p> <p><b>Specifications:</b></p> <ul style="list-style-type: none"><li>• 1 GHz High Speed Quad core 1 Processor</li><li>• Android 7.0 OS and above</li><li>• 8 GB Flash Memory Expandable up to 32 GB</li><li>• 1 GB SD RAM</li><li>• Real time clock with Battery backup</li><li>• 3.5" QVGA Touch display</li><li>• Built in 2" Impact Printer</li><li>• Built in GSM/GPRS/4G/Wifi</li><li>• Built in GPS &amp; 8MP Rare camera for QR read</li><li>• Built in Bluetooth</li><li>• 30key Alpha numeric Keypad</li><li>• Device Lock Protection</li><li>• USB 2.0 OTG</li><li>• Built in Battery (5200 mAh-Li-Ion) and associated intelligent charging circuitry</li><li>• Rugged Polycarbonate Plastic case housing</li><li>• User manual, AC Adapter, Carrying case and associated cables.</li></ul> <p><b>Two years manufacturer warranty, etc, as directed by HMWSSB Officials</b></p>	<b>700</b>		<b>Each</b>	
<b>Sub-total</b>					
<b>GST @ 18% on Sub Total</b>					
<b>Grand Total</b>					

**Signature of the Agency/ Firm  
with Stamp**

**HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD.****EoI.No:01/HMWSSB/Revenue Circle/2022-23/1390 Dt: 31-10-2022****2. Financial Proposal for Ribbon Cartridge for spot billing Machine (Epos Machine)**

<b>Sl.No</b>	<b>Description of Item</b>	<b>Qty per Month</b>	<b>Rate</b>	<b>Unit</b>	<b>Rate for 1 month</b>	<b>Rate per 12 months</b>
<b>I</b>	<b>Ribbon Cartridge for spot billing Machine (Epos Machine)</b> <b><u>Specification</u></b> a. Printer Model No: Epson ERC-09/40 b. Material Wrap Yarn: ABS JET Blac(N17A) c. Material Weft Yarn:ABS JET Blac (N17A) d.Width :90.9mm e. Height :24.9mm f. Weight: 4.0g(0.25oz) g.Ink absorbtion: 20-21% h.Ribbon Seamless Ribbon etc, as directed by HMWSSB officials					
	1(a)	Epson Make	2250	each		
	1(b)	Analogic Tech India Make or Equivalent Make	2250	each		
	1(c)	Japan or Equivalent make	2250	each		
<b>Sub-total</b>						
<b>GST @ 18% on Sub Total</b>						
<b>Grand Total</b>						

**Signature of the Agency/ Firm  
with Stamp**

**HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD.****EoI.No:01/HMWSSB/Revenue Circle/2022-23/1390 Dt: 31-10-2022****3. Financial Proposal for Epos Machine Rolls**

<b>Sl. No</b>	<b>Description</b>	<b>Qty per Month</b>	<b>Rate</b>	<b>Unit</b>	<b>Rate for 1 month</b>	<b>Rate per 12 months</b>
	<b>Epos Machine Rolls</b>					
<b>1</b>	<b>1(a)</b> Pre-Printed (single Color Front & Black ) Rolls of 20 meters, as directed by HMWSSB Officials	9000		<b>each</b>		
	<b>1(b)</b> Pre-Printed (Multi Color Front & Black) Rolls of 20 meters for Free water supply scheme (FWS), etc as directed by HMWSSB Officials	1800		<b>each</b>		
<b>GST @ 18% on Sub Total</b>						
<b>Grand Total</b>						

**Signature of the Agency/ Firm  
with Stamp**

**HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD.****EoI.No:01/HMWSSB/Revenue Circle/2022-23/1390 Dt: 31-10-2022****4. Financial Proposal for Data Scientist**

S.no	Item Description	Qty	Unit Cost in Rs	Total Cost per Month in Rs	Total Cost per Year in Rs
1	<p><b>Data Scientist :</b></p> <p>B.Tech / B.E from IIT/IIIT/NIT/BITS preferable advanced degree in statistics/ AI/ Machine Learning/ Data Mining/ Big Data Analytics/ MBA in Data Analytics with Minimum of 5+ Years experience in Similar role in IT industry in Fortune 500 Companies</p> <p><b><u>Job Responsibilities:</u></b></p> <p>Work with all stakeholders to understand the business problem and translate it into an analytical problem</p> <ul style="list-style-type: none"><li>* Expected to understand requirements of analytics use case, independently perform analysis, develop models, quality check, interpret results and present back to the stakeholders. Besides sound conceptual understanding and good programming skills, having a keen sense of business and interpreting the model outputs effectively is a key success criterion.</li><li>* Lead the process of translating business objectives into problems that can be solved by applying data science</li><li>* Design, optimize, and productize advanced analytics algorithms to address key business problems</li><li>* Translate modelling results into actionable business insights</li><li>* Perform exploratory data analysis, generate and test working hypothesis, and uncover important trends and relationships , ability to figure out the appropriate ML model to suit the requirement.</li><li>* Provide expertise on mathematical / statistical concepts and inspire adoption of advanced analytics</li><li>* Develop appropriate algorithms, test the quality and iterate till desired results are obtained</li><li>* Extract analytical insights and translate them to business insights; validate the insights and continuously improve upon interpretation skills</li></ul>	1			



<ul style="list-style-type: none"> <li>* Ensure coding as well as overall development best practices are implemented</li> <li>* Create intuitive and detailed documentation as appropriate</li> <li>* Contribute to collaboration and awareness in the global analytics community</li> </ul> <p><b>Knowledge, Skills And Abilities.</b></p> <ul style="list-style-type: none"> <li>* Proficiency in programming and scripting languages like Python, R, and SPSS is required; PySpark is a plus</li> <li>* Expertise in building statistical models including (but not restricted to) Linear Regression, Logistic Regression, Random Forest and time series modelling</li> <li>* Strong conceptual knowledge of Big Data technologies like Hadoop (Spark, Hive, Pig)</li> <li>* Familiarity with databases like MySQL, Oracle, SQL Server, NoSQL, etc. is desirable</li> <li>* Expertise in statistics, regression and classification models, machine learning techniques, NLP and Optimization techniques</li> <li>* Passion for understanding the key drivers within a complex business, being able to assimilate multiple data points to diagnose complex problems and deliver practical solutions and recommendations.</li> <li>* Good written and oral communication, with the ability to communicate effectively with stakeholders</li> </ul>				
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**Signature and Seal of the  
Company**

**HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD.****EoI.No:01/HMWSSB/Revenue Circle/2022-23/1390 Dt: 31-10-2022****5. Financial Proposal for Disconnection consumables**

<b>Sl.No</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Rate</b>	<b>Unit</b>	<b>Total amount in Rs.</b>
1	Plugging Material (CPVC for 1/2', 3/4' & 1' on average) etc., for 500 w/s disconnections etc., complete as directed by the Departmental Officers.	500		Each	
2	Doubled sided Hacksaw Blade with frame with 12 blades set etc., completed as directed by the Departmental Officers.	2		Each	
3	Supply and delivery of screw drivers etc., complete as directed by the Departmental Officers.	2		Each	
4	Supply and delivery of CPVC Solvent cement tube solution for disconnection of water supply connections (1 tube for 10 DCs), etc., complete as directed by the Departmental Officers.	50		Each	
5	Supply and delivery of jute bags for 100 sewerage disconnection (1 jute bag for 4 DCs), etc., complete as directed by the Departmental Officers.	25		Each	
<b>Sub-total</b>					
<b>GST @ 18%</b>					
<b>Grand Total</b>					

**Signature of the Agency/ Firm  
with Stamp**