



To: All Plan Holders of Record

From: CT Consultants, Inc.  
For the Owner

**Re: *Addendum No. 1***  
***Water Meter Replacement and Automatic Meter Reading Infrastructure***  
***(AMR) System – 2023/2024***  
***Village of Minerva***

Date: November 3, 2023

This Addendum forms a part of the contract documents and modifies the original bidding documents dated October 2023 and all previous addenda, if any. Acknowledge receipt of this addendum in the space provided in the bid forms. Failure to do so may subject the bidder to disqualification.

### **BID OPENING DATE**

The date of receiving and opening bids shall be changed from November 9, 2023, to November 13, 2023. The time and place shall remain the same.

### **BID DOCUMENTS**

Page BD-5, Article 6 Paragraph 6.7 - delete entire paragraph and replace with:

“6.7. The Contract Award shall be based on BOTH a review of the Technical Proposal with the OWNER and the Price Bid. OWNER shall determine the Technology to be utilized for this project first, and then shall award Price Proposal to the lowest and best bid or lowest responsive and responsible bid (as applicable for the public contracting agency receiving bids) for the base bid and selected alternate items (if any) for this project.”

Add the attached Bid Forms:

BID PROPOSAL QUESTIONS FORMS, BF.11 to BF.16: Bidder to provide answers to all questions to aid OWNER in review of qualifications of Bidder.

TECHNICAL PROPOSAL FOR AMR SYSTEM BF 17 – BF.18: Technical Proposal is described in Specification Section 330908.02 Page 4 paragraph 1.6. These bid forms must be completed and submitted with the Bid.

TECHNICAL PROPOSAL – INSERT HERE, BF.19.

AF/BR:br

Enclosures

H:\2023\230104\SPEC\Addendum\Addenda 01\Addendum 01.Doc

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## **BID PROPOSAL QUESTION FORM**

### **SECTION 1 – PAST AMR PROJECTS COMPLETION SUMMARY TABLE**

- 1.1 Provide a summary table of 5 recent AMR completed projects and include the following columns for each project:
- a. Utility name and number of MIUs/endpoints
  - b. Type of AMR system
  - c. Cost summary – bid amount and final completed project cost
  - d. Substantial completion schedule summary – as bid vs. actual
  - e. Final completion schedule summary – as bid vs. actual
  - f. Name, address and phone number of contact person at utility for reference.

### **SECTION 2 – PAST AMR PROJECTS COMPLETION LEGAL ISSUES**

- 2.1 Provide a summary table of AMR past projects which have resulted in legal issues and final resolution including:
- a. Utility name and number of MIUs/endpoints
  - b. Type of AMR system
  - c. % of AMR's that did not connect properly or could not be installed, and reasons
  - d. History of lawsuit and settlement

### **SECTION 3 - EXPERIENCE WITH SIMILAR PROJECTS**

(For each question, please list no more than 5 projects, preferably in Ohio.)

- 3.1 Describe contractor's history and experience in conceptualizing, developing, testing, manufacturing, selling, delivering, installing, upgrading, improving and supporting the delivery of an AMR system as is being proposed to utility.
- 3.2 Identify customers with similar projects and provide contact information for these references.
- 3.3 Identify your experience with water utility service projects.
- 3.4 Identify projects requiring interval meter data collection on a daily basis. Identify the daily success rate of such projects i.e. collecting more than 99% of all interval data on a daily basis.

## **SECTION 4 - CORPORATE OVERVIEW AND PROJECT TEAM**

- 4.1 Describe your company's quality program. How do you assess the quality of your subcomponents.
- 4.2 Are your production facilities ISO 9001:2000 certified? Attach a copy of the certification.
- 4.3 Describe your project management approach, including the process from sale through post implementation support. Identify key personnel and describe their experience in such roles.
- 4.4 Identify if key personnel are current employees of your company, contractors or yet to be determined.
- 4.5 Identify location of key employees, especially those who will do trouble shooting and customer support.
- 4.6 How will your company ensure the data integrity is maintained throughout deployment?
- 4.7 How will your company handle post deployment customer support with your in-house personnel?
- 4.8 How will your company handle post deployment training of the Village's staff?

- 4.9 Describe your company's customer service program. Define local service and what level of service is provided. Describe where your corporate customer service is located and what level of service is provided.
- 4.10 Identify standard training procedures for all utility personnel. Include course descriptions.
- 4.11 Identify the skills required by the system users to be able to fully utilize the system.

## **SECTION 5 - PROPOSED METER READING SYSTEM**

- 5.1 Please explain why we should use your meters, reading equipment, and/or software programs if they do not follow or meet the criteria in Section 6.
- 5.2 Please explain Network Management System.

## **SECTION 6 - MINIMUM SYSTEM REQUIREMENTS**

- 6.1 Does the proposed meters and AMR system provide leak detection, backflow, empty pipe, theft of service, and use profiling?
- 6.2 Does the proposed meters and AMR system provide two-way communication for updates?
- 6.3 Does the AMR System capture GPS locations for each meter to document physical locations, and archiving digital photographs of each meter that is removed to verify serial numbers and final readings (to help the Owner resolve billing disputes)?

- 6.4 Does the AMR System show a map display showing locations of meters?
- 6.5 Do the AMR and AMR Systems provide over the air S/W upgrades.
- 6.6 Provide a technical overview of the metering system that your Company proposes to install along with a description of how your Company will ensure compatibility with the City's current metering system.
- 6.7 Please explain how the AMR system shows which point of installation is the best and strongest for communication to the collector.

## **COLLECTOR**

- 6.8 Describe the process used to upgrade firmware in the collector. Identify if the upgrade can be done remotely and locally.
- 6.9 Describe how the collector can be remotely configurable. What changes can be made i.e. quantities metered, local display changed, load control schedule changed, demand limiting settings changed?

## **HEAD-END HARDWARE REQUIREMENTS**

- 6.10 The vendor must identify the server and other hardware requirements and specifications to ensure a robust operating platform.

## **HEAD-END SOFTWARE REQUIREMENTS**

- 6.11 In addition, the vendor must identify the software architecture and the ability to integrate with existing systems.

6.12 What licenses are required for the software?

## **BENEFITS**

6.13 Can the proposed AMR system integrate GIS data with applications for network analysis, outage management and troubleshooting?

## **TIME SYNCHRONIZATION**

6.14 Describe how the proposed solution manages time synchronization at the head-end, collector and AMR meters.

6.15 How often are components throughout the AMR system time synchronized?

6.16 Describe the proposed system's ability to upgrade firmware.

6.17. Describe the process for upgrading firmware. What happens if an attempt to upgrade fails?

6.18 Are collectors able to be locally upgraded?

6.19 Are meters able to be locally upgraded?

## **TAMPER AND ALARM DETECTION**

- 6.20 Describe the capabilities of the system to detect tamper at the meters.
  
  
  
  
  
  
  
  
  
  
- 6.21 What type of events/situations will trigger a notification to the collector and send information to the system?
  
  
  
  
  
  
  
  
  
  
- 6.22 How does the user at the Main system receive notification of possible tampering?

## **DATA SECURITY**

- 6.23 Describe the data security measures built into the system to protect data during transmission.
  
  
  
  
  
  
  
  
  
  
- 6.24 Describe the data security measures built into the system to protect data at rest.

## **SCALABILITY**

- 6.25 Describe how the system can accommodate growth in the number of meters/modules and demands on the system.
  
  
  
  
  
  
  
  
  
  
- 6.26 Describe how the system can accommodate change in future requirements. How is the system designed to avoid obsolescence?

# TECHNICAL PROPOSAL FOR AMR SYSTEM

## I. Life Cycle Costs

### A. General

1. Provide repair and replacement costs, annual licensing or maintenance fees.
2. Provide life expectancy for each component.
3. Provide life cycle costs for 5 years, 10 years and 20 years for each component.
4. All costs detailed shall not become part of the Bid Proposal, but shall be actual costs as of the time of bidding should the Owner choose to accept optional Maintenance Agreements, purchase spare parts, etc. Costs as provided shall be maintained for two years from the date of the executed Agreement for which this Technical Proposal is submitted.

### B. Hardware

1. MTUs
2. Backhaul hardware, power, service equipment and costs
3. Misc. tools/supplies (handhelds, drive-by collectors, programming tools, etc.

### C. Software

1. MTU data reading and interrogating and data management programs
2. FCC application, licensing and annual renewals
3. Software licensing, annual maintenance and support fees

### D. Maintenance Programs and Training

1. Annual and Multi-year programs, costs and coverage
2. Include annual FCC and software licensing fees
3. Support and training services and costs

## II. AMR System Description

- A. AMR system and components: full description, manufacturer catalog sheets, installation drawings, O&M manuals, repair manuals, parts manuals.
- B. Software: full features and functionality descriptions and interface with the Village of Minerva's existing billing software.
- C. Complete Bid Proposal Questions Form attached as part of the Bidders Qualifications forms.



- D. Warranties: Published terms and conditions for all components, including period of coverage vs. when maintenance programs need to kick in to continue coverage.
- E. Maintenance Programs: Required or optional – for both hardware and software; including features, terms, coverage, cost and additional charges such as for on-site or telephone support calls.

### III. Variances or Exceptions to Specifications

- A. List all exceptions or variances from specifications on separate sheet, attached with Technical Proposal.
- B. The Village of Minerva reserves right to accept any variances for any component of the system (MTUs, Meters, or software).
- C. The Village of Minerva reserves right to reject Bid based on non-compliance with listing exceptions to Specifications based on manufacturer data submitted.

**INSERT PDF FORMAT TECHNICAL PROPOSAL HERE**

One full copy of “Technical Proposal” and other documents to be submitted with the Bid shall also be provided in electronic media in PDF format, transmitted on one of the following media: CD-ROM, DVD, or flash drive, for Owner use in performing evaluation of Technical Proposal.