



Request for Proposal Purchase of an Electric & Water Advanced Metering (AMI) System

Prepared by the Village of Montpelier

211 N. Jonesville Street
Montpelier, Ohio 43543

Table of Contents

1.0 General Information	3
1.1 Overview.....	3
1.2 Project Description.....	3
1.3 Response Schedule.....	4
1.4 Proposal Rules and Instructions.....	5
1.5 Selection Criteria.....	6
1.6 System Ownership.....	6
2.0 Vendor Qualifications.....	7
2.1 Overview	8
3.0 Business Environment.....	7
3.1 Existing Business Systems.....	7
4.0 System Requirements.....	8
4.1 AMI System Operation.....	8
4.2 AMI Performance Requirements.....	9
4.3 Communications.....	10
4.4 RF Network Infrastructure Hardware Requirements.....	11
4.5. Electric Meter requirements.....	12
4.6 Demand Response Requirements.....	12
4.7 Distribution Automation Requirements.....	13
4.8 Water Metering Requirements.....	13
5.0 Implementation.....	14
5.1 Project Management.....	14
5.2 Project Delivery/Installation	15
5.3 Warranty/Extended Maintenance	15
5.4 System Support.....	16

6.0 Contracts and Licenses17

 6.1 General17

 6.2 Pricing17

 6.3. Meter Installation Labor & Pricing18

 6.4 Terms and Conditions18

 6.5 Supplemental Terms and Conditions19

Attachment A – Electric Meters22

Attachment B - Water Meters23

Attachment C – Additional Questions to be answered23

1 General Information

1.1 Overview

As a small Northwestern community of 3,988, Montpelier residents enjoy many benefits of a slower pace of life, as well as the advantages of our larger surrounding neighbors.

Located in Northwest Ohio, we are the second largest community in Williams County. We are centrally located in Williams County, ten miles to the west is Indiana and seven miles to the north is Michigan. Our county name, Williams, originated on February 12, 1820; the Ohio government authorized the creation of Williams County. Residents named the county in honor of David Williams; a hero of the American Revolution. Williams County was originally part of territory set aside for Ohio's Indian people by the Treaty of Greenville.

As a Public Power community, we have owned and operated our own electric utility since 1893. In our ongoing efforts to control our electric rates in a changing economy, we are active members of a multi-state consortium of fellow Public Power communities known as American Municipal Power (AMP). We are pursuing a portfolio approach to power supply, which includes wind, natural gas, solar, hydro and renewable energy sources. We have entered into multiple contracts for long term and short-term energy sources. Inevitably, rates will creep upward in the future, but we realize the necessity to keep the utility healthy and vital. It is of some consolation that even with increased rates, we, as a Public Power community, will still pay less than many Ohio residents.

1.2 Project Description

The Village of Montpelier is requesting the submission of proposals from qualified firms to provide an Advanced Metering Infrastructure System (AMI) for both electric and water customers to replace our current automatic read single phase electric meters, water meters, and manual read poly phase electric meters; Future controlling capacitor banks, water heater load control, and other Smart Grid solutions to meet the utility's long-term automation requirements including reliability, resiliency, redundancy, bandwidth, and cost.

Your proposal should include all hardware, software and services for system design, integration & testing, training, warranty and maintenance, documentation and all associated equipment required to provide a fully functional AMI System as described in this Request for Proposal. The system should support near-real time data exchange between the AMI systems.

The Village of Montpelier is seeking to improve customer service, mitigate peak system demand and reduce long-term operating costs by implementing an AMI solution that provides electric and water meter reads. It should interface with our current billing software and offer on request reads, remote disconnects and other functions.

This Request for Proposal does not commit The Village of Montpelier to pay for any costs incurred in the preparation or submission of any proposal or to contract for any services. The Village will, at its discretion, award a contract to the responsible vendor submitting the lowest and best proposal that complies with the requirements stated in this Request for Proposal. The lowest priced proposal may not necessarily be the one selected. The Village of Montpelier may, at its sole discretion, reject any or all proposals received or waive minor defects, irregularities, or informalities.

Objectives the Village is seeking from implementing an AMI system include, but are not limited to:

1. Provide the Village with greater management and control of electric and water system assets and enhance system performance while reducing operating and maintenance costs and improving efficiency.
2. Replace electric meters, add water meter MTU units, reduce maintenance costs, increase meter accuracy, and billed revenue while reducing water losses.
3. Support current billing rates and possibly future time-of-use billing and demand response programs; provide customers with web access to consumption data.
4. Provide outage, tampering/theft detection, remote disconnect functions, and an accurate reading from every meter every day.
5. Provide interval data for peak load analysis, load aggregation, circuit load balancing, transformer overload monitoring and engineering design.
6. Potentially support some smart grid related functions such as capacitor bank controls, fault detection, street lighting controls, conservation voltage reduction (CVR), recloser and possibly remote switching.

1.3 Response Schedule

All questions concerning this RFP must be submitted to The Village of Montpelier via e-mail no later than December 4, 2018. Technical questions or requests for clarification relative to this Request for Proposal must be directed to Jason Rockey, Village Manager, with a subject line heading “**The Village of Montpelier AMI Project**” and e-mailed to jrokey@montpelieroh.org Responses to all questions will be compiled into one document and emailed to all bidders.

Proposals must be received by The Village of Montpelier no later than 2:00 PM EDT, Friday, December 7, 2018. Proposals shall be addressed to:

The Village of Montpelier
Attn: Jason Rockey
211 N. Jonesville Street
Montpelier, Ohio 43543
Sealed Proposal

Advanced Metering Infrastructure (AMI) System

The final proposal package must arrive at the above contact and address on or before the submittal deadline. Proposals received after the deadline will be considered non-responsive and returned unopened. Packages or envelopes containing your proposal must be clearly marked on the outside as “**Sealed Proposal Purchase of an Advanced Metering Infrastructure (AMI) System**”. If delivered by courier, deliver to: The Village of Montpelier, Attn. Jason Rockey, at 211 N. Jonesville Street Montpelier, Ohio 43543.

Pre-Proposal Conference

No pre-bid conference will be conducted. However, in the event that a bidder wishes to come to The Village of Montpelier to observe the terrain, look at Montpelier’s service area and distribution facilities or gather information for a propagation study, The Village of Montpelier will attempt to accommodate your request.

1.4 Proposal Rules and Instructions

1. A brief cover letter including contact information
2. Three (3) printed copies of your organization’s complete proposal, including a separate tab within the proposal for pricing.
3. Attachment III: Questions (in current Microsoft Word Format) with responses

Validity Period

The proposal shall be considered current and a valid offer to undertake the work, subject to successful negotiation of a contract, for a period of at least one hundred-twenty (120) days and shall contain a statement in the proposal to that effect.

Definition for Bidder and Vendor

Bidder: as a “Turnkey RFP Respondent”

Vendor: Will be supplier to bidder for communication equipment/meters/software

1.5 Selection Criteria

Proposals will be rated based on the following criteria in no particular order:

- Ability of AMI system to provide all desired features
- Strength of solution for electric and water
- Ability to support optional requirements
- Vendor stability and strength
- Strength of project management and implementation plan
- Price (total cost of ownership)
- System interface capabilities & support provisions
- Strength of partnering relationships if needed to meet objectives

1.6 System Ownership

1.6.1 The Village of Montpelier would like to own, install all meters, and operate the AMI System after it is purchased and completely installed, but a hosting option could be considered if advantageous to the Village. The selected vendor will supply and install the head end and MDMS software and associated system hardware. The Village of Montpelier will install all electric and water meters, meter modules, any load control devices. The selected vendor will assist the Village of Montpelier with installing the following; communication devices such as collectors, repeaters and modems and back office hardware as necessary to meet the full system requirements. Any exceptions must be clearly identified on the exceptions list at the end of the proposal.

1.6.2 The selected vendor will supply water meters registers & AMI modules and electric meters/ modules. Vendor's bid should include projected meter replacements and module retrofits based on The Village of Montpelier's criteria.

1.6.3 If the bidder proposes a solution that requires data transmission over a third-party WAN or includes an outsourced data collection service, the bidder should provide a concise description of how the AMI system transmits data to The Village of Montpelier back office environment and the process that will be used for integrating system data with our current billing system and other applications.

1.6.4 The Village of Montpelier prefers hosted AMI system and will maintain ownership with access to all data generated. Optional on-premise AMI system will be considered but the bidders will specify and quote the necessary back office primary and backup servers, monitors, network connectivity, operating systems and other equipment so that the bidder can provide a working AMI System including all system infrastructure that can be fully tested before system acceptance. If possible, software should be pre-loaded and off-site tested before delivering servers to The Village if necessary.

1.6.5 Bidders should advise The Village of Montpelier of all operating characteristics, including the AMI system's required server processor power, required speed, recommended system memory, processor memory and configurations, mass memory requirements, backup protocols, Multi-Speak and storage requirements within the bidder's proposal.

1.6.6 Bidders should specify what database software products the system is compatible with, including the required software versions and whether they are included in the proposal submitted.

2.0 Vendor Qualifications

2.1 Overview

2.1.1 Only qualified vendors who have been actively engaged (for at least three years) in the design, manufacture, integration, configuration and installation of utility AMI Systems similar to those required in these specifications are eligible to submit proposals.

2.1.2 Only industry-certified, licensed and insured installers of AMI Systems, their respective components, modules and sub-systems, who have been actively engaged (for at least two years) in the setup, configuration, installation, testing and placement into service of such Systems are considered qualified candidates to install the software, meters and communications network. The AMI vendor should select qualified installers of their proposed network (including meters, interfaces and network communications equipment) and provide associated unit installation rates.

2.1.3 The bidder should furnish evidence demonstrating that the vendor has at least three years of successful experience in the design, integration, configuration, manufacture, testing and implementation of AMI Systems of similar type, size and configuration. No bids will be accepted from vendors who have less than the requisite number years of successful experience.

2.1.4 Vendor required to have delivered a minimum of 100,000 AMI modules deployed and in excess of 20 - two-way RF AMI systems in service at electric utilities.

2.1.5 The bidder must provide:

- Information on background, products and services.
- Number of years in business.
- Location of offices.
- Experience and qualifications in the AMI industry.
- Evidence of successful combined AMI and MDMS installations.
- List of current utilities using proposed AMI solution.

3.0 Business Environment

3.1 Existing Business Systems

3.1.1 Village of Montpelier requires a single platform of software with integrated software modules for all aspects, specifically: AMI (Electric & Water), including service area wide potential for fully- automated (not push button control) Load Management/Demand Response, and fully-automated Capacitor Control be provided to operate the system, Bidder must be responsible for designing, supporting, and maintaining this software platform themselves, not reliant on any third party to provide or support any aspect.

3.1.2 Village of Montpelier requires the system utilize an on-site Dell server utilizing Microsoft Windows Operating System and SOL Server database software, *No exceptions will be considered.* ALTERNATIVE: Village of Montpelier requires the system to be hosted in a certified data center whereas Village of Montpelier will pay a service fee to operate the selected automation software modules. All fees, licenses, and frequency of recurring charges will be identified in the proposal. Vendor must provide Village of Montpelier a license for the software that allows Village of Montpelier to operate the software in-house, at a vendor-provided hosting center, or a third-party data center, at its option. *No exceptions will be considered.*

4.0 System Requirements

4.1 AMI System Operation

4.1.1 The proposed AMI system should perform all electric and water meter reading operations, including providing register reads, commercial demand and interval consumption data using two-way communications. All electric meters should be read hourly, water meters should record hourly intervals, transmitted twice per day with data available at software.

4.1.2 The AMI system must be capable of implementing different meter reading schedules and automatically initiating read functions to collect all readings required to meet the billing schedule and system performance levels.

4.1.3 The AMI system should be capable of monitoring the current load and outage status of the distribution network and should be accessible to all required users. The head end software should schedule, request and collect the reads, monitor the general characteristics of all devices in the network and should be capable of providing system reports of network performance, outages, tamper conditions, low voltage, system load and other characteristics of network operation. Also, provide for future web access to read only data for larger/Commercial Industry customers.

4.1.4 The AMI system must be able to collect electric and water billing reads for all customer accounts and should support standard and time-of-use rate schedules. The system should be capable of resetting customer demand for demand accounts upon obtaining the monthly billing read and should support power factor calculations and retrieving the monthly power factor

figure if it is calculated by the meter. Reads must be date and time stamped. High accuracy, low flow water reads should be obtained from water meters.

4.1.5 The AMI system should be capable of extracting all available electric and water consumption, including demand and alert information from the meters, and be capable of retrieving a minimum of 45 days of historical data from the meters in the event of a communications interruption.

4.1.6 Meters must be capable of being visually read with no reliance on communications or host connectivity.

4.1.7 The AMI system must be capable of delivering power outage, low battery and tamper alarms as applicable from the meter to the head end. The AMI system should also have low voltage alarm detection capability at the meter.

4.1.8 The AMI system must be capable of performing remote firmware upgrades for individual meters, changing meter schedules and settings, updating firmware or communications protocols, and operating in broadcast mode to update all meter firmware at one time.

4.1.9 The AMI system should have remote meter disconnect and reconnect capability for electric meters provide on request reads, ability to ping the meter.

4.1.10 If a wireless solution is proposed, the AMI network should be “self-healing” and “self-initializing” within 1 hour of restoration.

4.2 AMI Performance Requirements

4.2.1. The AMI System should have the capability to obtain and record multiple readings over a daily period (e.g., hourly or 4 times per day) and to monitor and profile electric and water consumption patterns from a meter or group of meters.

4.2.2 We should have the ability to remotely reconfigure the AMI end point to read hourly or 15 minute intervals, and upload the interval data at the end of each daily read or billing period.

4.2.3. The AMI System must be designed and built with sufficient network infrastructure so that a daily read is obtained for each meter at a level of 98.5% success rate each day, with 99.8% read success rate for all meters read over any consecutive three-day period. Supplier must guarantee network coverage of all endpoints with 95% redundancy.

4.2.4. To avoid orphan meters, 100% of the meters on The Village of Montpelier network should be heard from daily.

4.2.5. The AMI System meter reads must be proven to be accurate with all meter types approved for use on the bidder’s AMI system. Reads should have a less than 0.2% error rate.

4.2.6. The AMI System must capture 98.5% of the read intervals for 98.5% of all AMI meters providing hourly reads each month.

4.2.7. The AMI System should retrieve the previous day's billing reads for 98.5% of all meters by 8:00 AM on the following day and 98.5% of the billing reads over any three-day billing window.

4.2.8. All AMI system meter reads, events, alarms, leak and low voltage detection, power outages and restorations must be date and time stamped.

4.2.9. The bidder must describe what AMI and MDMS system level reports are available to monitor daily read activity and assure that the required read performance levels are being achieved each day. A separate report should identify all meters that are not read on any given day.

4.2.10. The AMI System must perform on-request meter readings, ping the electric meter and perform remote disconnect/reconnect functions with a response or acknowledgement back to the central office provided in 30 seconds or less.

4.2.11. The AMI System should be capable of delivering outage alarms from the meter after outages occur and reporting power-on status after restoration. The system should be capable of generating a list of addresses affected by an outage event and recording the cumulative number of outages. Network collectors or similar devices should be battery equipped and have a minimum of 3 day operation time when operating in battery back-up mode.

4.2.12. The Village of Montpelier would like to understand the AMI system capabilities to record water meter consumption with smaller unit precision for billing, conservation and leak detection purposes. In either case, meters with the latest available manufactured precision capabilities should be provided.

4.3 Communications

4.3.1 The AMI system bidder should perform all necessary propagation studies and determine the appropriate locations for towers, data collectors, concentrators, repeaters and any other wireless network devices. The bidder's project cost estimate should include the appropriate number of these devices, including installation cost, to achieve the required levels of system performance. Supplier must guarantee 100% coverage as part of the bid with 95% redundancy.

4.3.2 To the extent that the proposed AMI network may require mounting and power supply for certain devices on poles, towers or at pad-mount transformers, the bidder should provide the appropriate specifications for these devices to include size and weight of equipment, service or access requirements, power supply requirements, and other relevant specifications. If battery backup is available for network devices, the bidder should provide a cost with and

without this feature. Solar power options for collectors & repeaters may be offered as an option.

4.3.3 The AMI network should be capable of supporting firmware upgrades over the air without visiting the meter. The network design should provide sufficient bandwidth to accommodate future broadcast firmware updates, including future meter schedule changes and Smart Energy Profile updates.

4.3.4 The AMI network and all devices must utilize the entire 902-928 MHz ISM or 450-470 MHz frequency band for maximum propagation and to mitigate the possibility of interference. Solutions that require partitioning or segmenting~ this spectrum, such as for a 2nd tier network or WAN, are non-compliant and shall not be considered.

4.3.5 The RF network must provide a minimum of 154 kbps throughput in the field between meters and the gateway/router/collector device.

4.3.6 All devices (AMI modules, LCDs, and DA interface devices) must have the ability to transmit up to 1W maximum output power to ensure effective two-way communication with meters located in meter rooms, meter vaults, or inside buildings.

4.3.7 All C&I AMI Modules and the network must support the collection of a minimum of 12 interval data channels. Also, note how many channels are Bi-Directional.

4.3.8 On both single-phase and polyphase endpoints the intervals for reporting and recording of data are to be independent of each other in order to maximize bandwidth utilization. For example, the system shall support 15-minute interval data recording while only requiring transfer of this data over the network every 4 hours. Systems not supporting this flexibility shall not be considered.

4.4 RF Network Infrastructure Hardware Requirements

4.4.1 To support Village of Montpelier's deployment strategy, either point-to-multi-point or mesh networks are acceptable. Mesh networks can utilize Repeaters/Edge Routers/Range Extenders to bridge any significant distances between deployed devices. These devices must also be allowed to be daisy-chained together (i.e. relay to relay or router to router) if needed to provide connectivity to devices separated by vast distances; any networks incapable of this are noncompliant.

4.4.2 Repeaters/Edge Routers/Range Extenders must be able to be powered from any source operating at 120-240 VAC and utilize battery back-up to minimize communication interruptions.

4.4.3 All Collectors, Gateways, Routers, or other network infrastructure must be mounted on utility poles at 30 ft. AGL or less. Locations must be approved by and coordinated with the Village of Montpelier Electric Department.

4.4.4 To avoid inconvenience to our customers, AMI collectors or routers shall be capable of being installed, replaced, and maintained without causing outages to consumer services.

4.5 Electric Meter Requirements

4.5.1 Vendor must support electric meters from a minimum of two different manufacturers. Meters from Sensus will not be considered as a compliant meter type. State manufacturers and meters supported. Note: having multiple meter models from the same manufacturer is not considered compliant with this requirement.

4.5.2 Preferred electric meter vendors are as follows (listed in alphabetical order):

- a. Elster
- b. GE/Aclara
- c. Itron

4.5.3 Time-of-Use (TOU) functionality must be included in every meter, including the ability to display the current rate period as well as kWh usage and peak kW for each TOU rate bucket on the face of the meter. TOU functionality calculations performed in the automation software shall be deemed noncompliant with this requirement.

4.5.4 Super capacitors lasting a minimum of ten (10) minutes shall be included in all meters to support delivery of outage notifications to Village of Montpelier.

4.6 Demand Response Requirements

4.6.1 AMI Vendor must directly have a minimum of 75,000 two-way load control receivers proposed to Village of Montpelier. Please list number of units your organization has sold and are in use.

4.6.2 Vendor must have a proven DR software platform in use by at least 20 electric utilities.

4.6.3 Bidder must be the sole provider for the RF LCD, including responsibilities for designing, manufacturing, and supporting the device. Solutions where one entity is providing the radio module and a third party manufactures the load control switch will not be considered.

4.6.4 DR system must support two threshold-based triggers to allow for future automated initiation of control of The Village of Montpelier's DR assets based on price, coincident load,

or status from an outside entity, such as a power supplier. Automatic increase of these thresholds shall also be supported.

4.6.5 Demand response switches must be available with up to 2 relays consisting of 5A, 30A, or 5A & 30A styles. Vendors that cannot offer switches with multiple relays will not be considered.

4.6.6 Bidder must offer a version of the LCD that can operate at 480/277V.

4.6.7 All DR devices must support control directly from the AMI Network and not require Zig Bee or other communications technologies.

4.6.8 The proposed DR solution must NOT require Village of Montpelier to pay any monthly (or annual) per device communication or license fees. Software license fees are acceptable.

4.7 Distribution Automation Requirements

4.7.1 Vendor must have a verifiable and current history of interfacing to cap bank controllers, voltage regulators and reclosers in service.

4.7.2 Vendor must have three utilities utilizing the proposed RF network to remotely monitor and operate capacitor bank controllers and/or voltage regulators. Please provide a list of these utility customers for verification.

4.7.3 Vendor must provide a RF communication module to interface with distribution automation equipment (capacitor bank controller, voltage regulators and reclosers).

4.7.4 DA Communications device and AMI Network must support DNP integrity/exception polling and control messages as well as unsolicited DNP alarms and events triggered and generated by DNP-enabled Intelligent Electronic Devices that are interfaced via the AMI Network.

4.8 Water Metering Requirements

4.8.1 Vendor's organization shall have a currently available fully two-way water communication device (water AMI module) based on its own design, participating fully on the electric AMI network. This water AMI module shall not be reliant on third party radio communication devices, such as those from water-based AMR companies such as Badger Meter, Master Meter, Neptune and Mueller or any Zig Bee-based devices in any way.

4.8.2 Vendor's water node must be meter agnostic, supporting water meters from Badger Meter, Neptune, Sensus, Master Meter, Kamstrup, Mueller, and Zenner.

- 4.8.3 Vendor's water node must support wall-mount and pit mount installation.
- 4.8.4 Vendor's water node battery must have a minimum of 20-year life.
- 4.8.5 Vendor's water node must support the retrieval of status/alarm points from the Badger Meter E-Series water meters.
- 4.8.6 Proposed Vendor must have at least five joint electric/water utilities utilizing the proposed RF network to remotely provide reading and interval data from water meters. Please provide a list of these utility customers for verification.

5.0 Implementation

5.1 Project Management

Please submit a high level preliminary project work plan and deployment strategy for consideration by The Village of Montpelier. This plan should include a preliminary scope of work showing the proposed implementation schedule, tentative project milestones, user training and final acceptance.

- A. Implementation Schedule: Upon The Village's approval of the implementation schedule, this schedule will become the master schedule for the project. The vendor awarded the project must complete all start-up activities including arrangement of workforce in time to begin installations on the official start date.
- B. Project Milestones: As mentioned above, bidders should provide a list of tentative project milestones with their response to the Request for Proposal. Subsequently, as the project schedule is finalized, the project milestones may be adjusted in the post-award implementation schedule.
- C. User Training: Please provide a listing of recommended on-site training. This training should include operation and diagnosis of the head end system, initial set up and configuration, equipment installation and diagnosis of meter endpoints and network hardware and other training as required.
- D. Project Acceptance Testing: Please provide a typical test plan that describes bidder's project acceptance testing procedures and tests to demonstrate to the satisfaction of the Village that the system has been fully installed, all system applications are working and the required system level performance is being achieved. Clearly state what level of test support is included in the bid.

5.2 Project Delivery/Installation

The successful bidder should expect to begin AMI system implementation workshops within eight (8) weeks of the contract signing. Any exceptions or inability to support the preliminary timeline, including delivery of head end software, network meters, endpoint devices and other equipment, should be clearly stated prior to contract signing.

Within 8 weeks after contract signing, the successful bidder should provide the Village with firm delivery dates for required project meters, network equipment and software that support the agreed timeline. A preliminary training schedule must also be provided that covers all necessary training in time to support project start-up.

The bidder is expected to provide network equipment installers or engage a contractor capable of installing data collectors, repeaters and other network devices. Bidder will be responsible for conducting all required site propagation studies and determining the general locations of network equipment in a manner needed to meet specified performance levels.

Within 6 weeks after project start-up, the successful bidder must provide a final test plan that describes the equipment, software applications and system performance requirements that will be tested, the metrics and expected results to be achieved and the methodology that will be used. The Village will review this plan and reserves the right to add additional testing requirements to ensure that the system is working to our satisfaction.

Prior to contract signing, The Village and the successful vendor will mutually agree to a specific set of project milestones generally based on the milestones provided in the bid, such as start-up date, initial software and meter delivery, establishment of billing interface, initial testing, project completion, etc.

These dates will apply to both the AMI and MDMS vendors and the installation contractor(s), if different, and will become part of the master schedule.

5.3 Warranty/Extended Maintenance

Bidders must furnish a written warranty that the complete AMI system, including its associated components, software, appurtenances, accessories, systems, and hardware required under the contract have been fully tested and found satisfactory in every respect. Warranties for third party equipment, including meters, should also be provided.

The warranty should provide in writing that all equipment and systems are new, unused, in first class condition, in full compliance with the requirements of these specifications and are free from defects in materials, labor, and workmanship for the full warranty period.

In the event equipment warranty defects are found during the project installation period, vendor must immediately make repairs or replace any such defective equipment or software to the complete satisfaction of the Village and at no additional expense. Endpoint failures should

not exceed the levels 0.5% failures during the warranty period, or a 1% annual failure rate during any one calendar year in the first 10 years of system operation.

The bidder should provide an extended warranty alternative, with associated pricing and state the terms and conditions of this offering. The bidder should also offer a long-term maintenance and support agreement option that would cover the entire period of AMI system operation beyond the warranty period.

If AMI system performance becomes impaired or otherwise fails to perform to acceptable standards, the successful vendor must work with Village of Montpelier to determine the cause and recommend an appropriate course of action to return the AMI system to a satisfactory working condition.

5.4 System Support

The successful vendor should provide a phone-in service and support website for assistance regarding software or hardware problem determination and resolution.

Fax and email services should also be available. Bidders should provide a sample maintenance agreement covering post warranty support and response times. If maintenance or repairs are handled by third party suppliers of meters, network equipment or other items, a maintenance agreement should be provided that provides for Returned Material Authorization and other pertinent provisions.

A customer help desk should be available to provide assistance and help the Village to diagnose problems affecting normal system operation. This standard level of assistance should be available during the entire period of system operation.

The AMI and MDMS system vendor(s) should provide remedial software fixes when necessary and routine updates to the licensed software at no additional cost to the Village. The AMI and MDMS vendor(s) should supply all necessary instructions for the installation of remedial fixes, updates, minor corrections or workarounds if they are to be performed on-site by our personnel. Major upgrades and fixes should be handled either remotely or on-site by vendor personnel.

If required, the AMI and MDMS system vendor(s) should be willing to deploy software or hardware support technicians to our site to isolate alleged errors in the software or hardware, resolve problems and apply corrections or workarounds. The bidder should clearly state if 24/7/365 support is available, provide associated response times and the associated cost for this service if a standard maintenance services agreement does not already provide it.

The bidder's AMI/MDMS software must be supported for a minimum of fifteen (15) years with enhancements, software version updates, and corrections of defects, at no additional cost

to The Village of Montpelier beyond the annual maintenance fee or provide a backwards compatible new version at no charge to The Village of Montpelier.

6.0 Contracts and Licenses

6.1 General

6.1.1. List all scoping and pricing assumptions in your proposal to permit proper analysis and price comparisons. Both capital and annual operating cost data should be provided.

6.1.2. List options separately. If pricing can be best provided by combining features or functions, please provide both options along with associated assumptions.

6.1.3. Validity Period. All prices must be valid for acceptance for a period of 120 days. Prices must apply for the duration of the project. Bidder's proposal shall be considered current and a valid offer to undertake the work, subject to successful negotiation of a contract, for a period of at least 120 days, and shall contain a statement in the proposal to that effect.

6.1.4. All assumptions concerning use of third-party products and services should be clearly stated. If partnering arrangements are established for the purpose of satisfying the requirements of this Request for Proposal, responsibilities and associated costs should be clearly delineated.

6.2 Pricing

6.2.1 Complete project pricing should be itemized and detailed in an Excel spreadsheet format and must include all AMI and MDMS system hardware and software components, meter/module costs, installation, modification, configuration and maintenance costs, interface costs, third party software, and any other services, including optional deliverables. It must detail all applicable software licenses: server/site, module and/or seat licenses.

6.2.2 The pricing should include unit labor costs associated with the implementation and maintenance of the network hardware, software and equipment, some initial meter site visits meter/module installations, and interfaces. This pricing should be itemized by category, meter type, and each item of services identified. Any services or software provided by a third party must be separately identified along with its cost.

6.2.3 Communications network installation costs should be provided for the mounting and connection of components of the AMI network. Installation labor should be provided and priced on a unit installation basis and the cost to install the network should be quantified based on the number of devices required. Any contractor work or street permit costs or fees should be included within the unit pricing.

6.2.4 Bidders should provide pricing for additional network and endpoint devices and equipment that are purchased upon completion of the implementation and warranty periods. This includes material costs to accommodate new meter growth and after warranty failures.

6.2.5 Please provide costs associated with the maintenance and on-going support of the system after system acceptance and warranty have expired. Provide a yearly maintenance and support agreement cost that includes software updates, bug fixes, trouble support, and replacement and servicing of head end and network equipment over the life of the AMI system.

6.2.6 Please provide an estimate of the monthly and annual cellular costs associated with the backhaul of data, either from the network data collectors or from the meters themselves, as applicable. If cellular set up charges or other fees associated with establishing the cellular connections are required, they should be included as well.

6.3 Meter Installation Labor & Pricing

Optional – N/A

6.4 Terms and Conditions

6.4.1. The Village of Montpelier reserves the right to reject any and all proposals, or portions thereof, received as a result of this Request for Proposal.

6.4.2. The Village of Montpelier reserves the right for any reason to waive minor irregularities in any proposals received and to negotiate with any party in any manner deemed necessary to best serve the interests of the utility.

6.4.3. The Village of Montpelier will not be responsible for any costs incurred by any party in preparation of any proposal submitted in response to this Request for Proposal.

6.4.4. The Village of Montpelier reserves the right to amend, extend or cancel this Request for Proposal at any time if the best interest of The Village of Montpelier requires such action. The Village of Montpelier reserves the right to make any changes in the RFP as deemed appropriate. Any and all changes shall be made by written addendum, which shall be issued by The Village of Montpelier to all prospective bidders who have been issued copies of the RFP.

6.4.5. News releases pertaining to this Request for Proposal, contract award, or the project must **not** be made without prior written approval from The Village of Montpelier.

6.4.6. The Village of Montpelier will pay for actual work performed and expenses incurred under this project up to the specified contract amount. Specific payment provisions will be arrived at upon mutual agreement of the parties. All payments will require the submission of an

itemized billing of work performed to date in sufficient detail to justify payment. Prevailing wage rates will apply where applicable.

6.4.7. Bidders submitting proposals must not discriminate. For the duration of the performance of this contract, the contractor will be expected to comply with all federal, state and local laws respecting non-discrimination in employment.

6.4.8. All bid materials submitted by the bidders will become the property of The Village of Montpelier. No materials will be returned to successful or unsuccessful bidders.

6.4.9. The Village of Montpelier assumes no liability of any kind with respect to this Request for Proposal or any matters related thereto. All prospective contractors and their subcontractors or successors, by their participation in the Request for Proposal process, must indemnify, save and hold The Village of Montpelier and its employees and agents free and harmless from all lawsuits, causes of action, debts, rights, judgments, claims, demands, damages, losses and expenses or whatsoever kind in law or equity, known and unknown, foreseen and unforeseen, arising from or out of this Request for Proposal and/or any subsequent acts related thereto, including but not limited to the recommendation of a contractor and any action brought by an unsuccessful applicant.

6.4.10. A Notice to Proceed shall be issued upon execution of a contract between The Village of Montpelier and the successful bidder. In the event that such Notice to Proceed cannot be issued in a timely manner, the time may be extended by mutual consent of the parties.

6.4.11. Any contract executed with respect to this Request for Proposal will contain The Village of Montpelier's customary provisions for a contract for services.

6.5 Supplemental Terms and Conditions

6.5.1. **Additional Terms and Conditions.** The Village of Montpelier's purchasing department may identify other terms and conditions not specifically stated in this RFP that may apply, including Non-Collusion, Personal Property Tax and Certificate of Findings for Recovery Affidavits, and/or requirements for additional forms, affidavits and schedules that must be completed and submitted in connection with the bid or as part of a future contract. Any inconsistencies or conflicts with the terms and conditions listed in this RFP shall be listed as an Exception and resolved in a mutually agreeable manner prior to contract signing.

6.5.2. **Bid Bond.** A Bid Bond or Bid Surety of 10% must be made payable to The Village of Montpelier in the form of a bond for the full amount of the bid or with a corporate surety approved by the Village or payable with a certified check. Upon execution of a contract with the selected vendor, all other bid guaranties will be returned to the unsuccessful bidders.

6.5.3. Performance Bond. Upon execution of the contract, successful bidder will be required to provide a 100% performance guarantee, in the form of a performance bond issued by a surety company or corporation licensed in Ohio to provide said surety.

6.5.4. Retainage. In connection with any future Agreement, The Village of Montpelier may retain a certain percentage of funds that would otherwise be paid to the successful bidder until the work is substantially completed. Consequently, The Village of Montpelier may elect to retain 5% of the amount incurred and billed for services on the first 50% of the project expenditure until final acceptance has been achieved.

6.5.5. Public Records and Confidentiality. The Village of Montpelier will exercise best efforts to honor any assertions of confidentiality claimed by bidders, but it is the responsibility of bidders to support and defend any such claim of confidentiality. The Village of Montpelier is not responsible or liable to the bidder or any other person or entity, for the disclosure of any materials submitted by the bidder, whether such disclosure is required by law, by an order of court, or through inadvertence or mistake on the part of The Village of Montpelier or anyone acting on its behalf. Ohio law requires that all information maintained by or in the possession of The Village of Montpelier is a public record, subject to specific exceptions. It is the responsibility of the bidder to establish its right to any such exception. By submitting a proposal in response to this RFP, bidders acknowledge The Village of Montpelier's legal obligation to respond to all public record requests in a timely manner, unless bidder establishes its right to a public records exception. The Village of Montpelier is not responsible for maintaining as confidential any information submitted by a bidder.

6.5.6. Disputes and Arbitration. All claims, disputes and other matters in question between The Village of Montpelier and the vendor arising out of, or relating to, the contract documents or the breach thereof, shall be settled, if possible, by a negotiation and mutual agreement of the parties hereto. In the event of their inability to agree, The Village of Montpelier shall reduce its finding to writing and mail or otherwise furnish a copy thereof to the vendor. All such disputes shall be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State of Ohio. The vendor will carry on the work and maintain the progress schedule during any arbitration or court proceedings, unless otherwise agreed in writing.

6.5.7. Taxes and Insurance. The successful bidder will pay all sales, consumer, use, and other similar taxes required by The Village of Montpelier, Williams County and the State of Ohio. Vendor's employee and contractor income or employment taxes shall be paid to the respective taxing agencies in accordance with applicable laws.

6.5.8. Indemnification. The vendor will indemnify and hold The Village of Montpelier and its agents and employees harmless from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the work. Any such claims, damage, loss or expense attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, including the loss of use resulting therefrom,

caused in whole or in part by any negligent or willful act or omission of the vendor, or any of its sub-contractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, is the sole responsibility of the vendor, without limitation.

6.5.9. Certificate of Authorization. The successful bidder must provide a Certificate of Authorization to transact business in the State of Ohio that has been duly filed with the Ohio Secretary of State.

6.5.10. Additional Declaration. The successful bidder will be required to provide a Declaration of Material Assistance/Non- Assistance to a Terrorist Organization as required under Ohio law.

6.5.11. Prevailing Wage. The State of Ohio's prevailing wage laws will apply to this project, and prevailing wages should be reflected as applicable in all unit installation pricing.

Note: Village of Montpelier will be installing all electric meters & water meter modules.

Attachments:

Attachment A:



Attachment A.docx

Attachment B:



Attachment B.docx

Attachment C:



Attachment C.docx

Attachment A: Electric Meters Installed

Class	Manufacture	Number Installed
Form1S, Class 20, 120V		6
*Form 2S, Class 200, 240V		2200
*Form 2S, Class 320, 240V		25
Form 3S, Class 20, 240V		6
Form 4S, Class 20, 240V		10
Form 9S, Class 20, 120-480V		100
*Form12S, Class200, 120-480V		10
*Form 16S, Class 200, 120-480V		30
Total		2387

- ***Integrated Disconnect / pre-pay availability**
- **Give a recommended number needed for backups to be kept in inventory**

ATTACHMENT B: WATER METERS

Meter Size	Number of Meters	Pit	Inside
5/8 x3/4	1900	1860	40
3/4"	5	5	0
1"	61	61	0
1.5"	6	6	0
2"x17"	32	32	0
3"x12"	3	3	0
4"x14"	2	2	0
10"x18"	1	1	0
Total	2010	1970	40

- **Give a recommended number needed for backups to be kept in inventory**

Attachment C: Supplemental Questions to be answered

General Questions:

1. How many customers and/or meters are deployed in production on the current version of your solution?
2. Who is your largest customer using your solution in production?
3. What are some complications you have ran into in the past with your proposed solution?
4. Is your proposed solution upgradeable for future uses? Such as street lighting control?

Security Questions:

1. How is meter data encrypted as it travels from the end device across the network and back to the AMI head-end systems?
2. How is data encrypted on the backhaul between the field network and the AMI system? Are VPN tunnels used?
3. Is there 24x7 security monitoring of the AMI head-end and/or MOM systems, firewalls and network?

4. Describe the approach that is taken for system security and the security standards?

System Design Questions:

1. Describe the system architecture and configuration of your proposed system. Include diagrams that identify each component being proposed in an overall system design for infrastructure deployment and a description of the connectivity between the endpoints and the head-end system. Describe and show the architectural design and functional layout of the AMI System.
2. Please provide the minimum/maximum capabilities and describe any capacity limitations with respect to the bandwidth, amount/speed of data and number of devices that the proposed technology can support.
3. Please describe the capacity of each system component in terms of the number of meter readings stored (in total and per AMI end point) and/or the number of meter readings that can be transmitted or received in a given time interval.
4. Please provide a complete list of all electric and water meters that are compatible with your solution and fully compliant with metering regulations. For each type of meter, provide as applicable:
 - Manufacturer
 - Model/Form number/Size/Type
 - Historical 3, 5 and 10 year meter failure rates
 - Battery failure rates- 5, 10, 15 and 20 years
 - Accuracy
 - Data security features
5. Can meter programs and firmware be upgraded remotely?
6. What is the warranty on Electric Meters?
7. What is the warranty on Water Meter modules?

System Integration Questions:

1. Describe experience integrating to municipality billing systems such as SSI. Provide a list of those that you have integrated to.
2. What other interface options exist? Please describe and show which systems they have been integrated to, such as GIS, SCADA

Software Questions:

1. Describe any new functions and features of the head end software that are planned for release over the next 12 months and the projected release dates.
2. Describe the upgrades or enhancements that have been made to the AMI and MDMS software products over the past three years. Please include a list of standard system interfaces that are currently supported for billing, outage management, home area networks, GIS, load control and other systems, along with future plans over the next 12 months.

Backups:

1. How are AMI Head-end and/or MOM system backups performed?
2. Are backups stored in an offsite location?
3. Does the AMI Head-end and/or MDM system include a disaster recovery site?
4. How often is a disaster recovery test performed done?

Roles and Responsibilities:

1. Who is responsible to perform the following tasks?
 - Meter and firmware upgrades
 - Define and deploy meter programs
 - Monitor AP, Collector, and relay availability and resolve issues with backhaul
 - Monitor read job performance and corrects any issues
 - Apply critical security patches to the AMI head-end and/or MDM systems, databases, and underlying server operating systems
 - Perform disaster recovery testing
 - Manage and support underlying IT infrastructure that runs the AMI head-end and/or MDM
 - Manage and support underlying databases and applications that run the AMI head-end and/or MDM
 - Perform major and minor system software upgrades to AMI head-end and/or MDM
 - Assist with complex advanced data investigations. Example: looking through data and events leading up to a suspected tamper event or hot socket issue.
 - Provide ad-hoc training for staff on the system as needed
 - Handle RMA paperwork and manage the RMA process for failed equipment