# Attachment D - Meter Installation Services

| ID | Sub-area | Requirement Description | Type (Base/ Optional) | Compliance  (Meets; Does Not Meet; Not Applicable) | Compliance Description |
| --- | --- | --- | --- | --- | --- |
|  | General | The Respondent shall provide installation project management and work closely with the overall project manager and with FCWS. Installation effort shall include:   1. Meter and MIU installation project management 2. Field supervision of installers hired for this project 3. Meter and service line repairs (as authorized) 4. Claim/complaint management from the Owner’s customers 5. Safety programming to ensure safe installation practices and safety incident reporting 6. Call Center services 7. Field mitigation of all non-communication meters and endpoint during the installation period, defined as prior to the final system acceptance. | Base |  |  |
|  | General – Federal funding compliant | Respondent shall comply with requirements for using Federal Government funding and State of Georgia’s General Decision Number GA20210131 – Department of Labor Wage Determination. See Appendix 1 (b) and 1 (c). Provide exceptions to these terms and conditions. | Base |  |  |
|  | General | ~~Installation contractor shall be a licensed utility contractor with the state of Georgia.~~  **Requirement amended with Addendum #3:**  FCWS prefers the lead responsible person in charge have a Distribution Operator certification. FCWS requires the contractor to have a Master Plumber available for this project to execute service repairs if needed. See Question 9 in the Addendum. | Base |  |  |
|  | General | Respondent will develop a field deployment plan that includes but not limited to the installation plan details, mobilization, RTU procedures, claims processes, and inventory management for the complete project. | Base |  |  |
|  | General | Respondent shall have a process that allows for electronically collecting and entering data such as equipment ID numbers as well as data quality control and backup processes. | Base |  |  |
|  | General | The FCWS reserves the option to install system components using FCWS staff, including but not limited to meters, MIUs, and other related system equipment. Installations done by others do not relieve the Respondent from warranting the equipment and/or system performance. | Base |  |  |
|  | General – installation hours | Installation effort shall align with FCWS work hours which are Monday through Friday, 8 am – 5 pm EST during the months of Nov through Mar. For the months April through October, work hours are Monday through Friday, 8 am – 6 pm EST. Saturday’s 9 – 4 pm can be available if installation is behind. FCWS holidays excluded.  Describe if there are allowances for expanded hours in case the installation effort falls behind. | Base |  |  |
|  | General - staffing | Respondent will staff installation team with qualified supervisors and field technicians. Describe how your supervisors and technicians are trained and how the quality of their work is managed. | Base |  |  |
|  | General - Staffing | Supervisors shall be certified water distribution operators |  |  |  |
|  | Installation monitoring | Respondent will provide a dashboard that provides a daily snapshot of project progress, network installation counts, and important issues. | Base |  |  |
|  | Warehouse/Office space | Respondent shall provide a resource to who is responsible for managing meter inventory and handle all aspects of the meter inventory (new and old meters) and ensure installers have adequate supply of meters for installers. Describe how meter inventory will be managed. | Base |  |  |
|  | Warehouse/Office space | The Respondent will maintain at least one insured, staffed office, and warehouse within Fayette County. | Base |  |  |
|  | Warehouse/Office space | The Respondent will ship endpoints and meters to the Respondent’s warehouse prior to installation. FCWS will take ownership of equipment and provide payment for equipment and installation only after the installation successfully passes Endpoint Acceptance Testing. | Base |  |  |
|  | Warehouse/Office space – Random Sample testing | The Respondent shall have a meter testing bench to perform random sample testing to approve meters received in the warehouse. Upon completion of the deployment, the ownership of the meter testing equipment will transfer to FCWS (see requirement 15 below). Describe the process of random sample testing. | Base |  |  |
|  | Warehouse/Office space – Random Sample testing | Meter testing bench shall be able to test multiple meters at the same time. Up to 5 meters at the same time. Describe the meter test bench proposed and provide pricing using the pricing template. | Base |  |  |
|  | Warehouse/Office space | Respondent will store removed meters for a minimum of 90 days. While stored by Installation Respondent, they must be organized such that a meter can be retrieved if a final read is questioned. Describe method for managing and indexing the old meter inventory. | Base |  |  |
|  | Warehouse/Office space | The Respondent will provide and maintain an onsite supply of consumables needed for meter installations (such as wire/cables, wire connectors, washers, gaskets, flange kits, and bolts). | Base |  |  |
|  | Warehouse/Office space | The Respondent’s warehouse shall have adequate space to store network equipment during the project deployment (if applicable) |  |  |  |
|  | Background checks | The Respondent will conduct background checks for staff that meets FCWS requirements. At the minimum, the following background checks shall be completed on all installation contractor and subcontractor resources:   * Georgia State Repository Search * Nationwide Database Search * Motor Vehicle Report * Social Security Trace * Other state repositories - if reside within other states in the last 10 years   The Respondent will not employ any installer who fails these checks. FCWS reserves the option to review all background checks or request background check verification prior to any contract resource starting work on FCWS projects. | Base |  |  |
|  | PPE and Uniforms | Respondent will provide PPE, installer uniforms, identification badges, vehicle signage, etc. | Base |  |  |
|  | Installation approach | The Respondent will have a methodology to perform installations geographically and ensure saturation goals by route/bill cycle. | Base |  |  |
|  | Field Deployment System | Respondent will provide a field deployment management (FDM) system that ensures the successful and verifiable/validated installation of water meters and appurtenances, sensors, MIUs, and equipment. Describe the capabilities that the installation FDM has. | Base |  |  |
|  | Field Deployment System | Integrate with the Tyler Munis CIS system for customer account data, meter inventory data, and post-installation data. Customer account and meter inventory data require weekly updates, at a minimum. Describe how these systems will be integrated. | Base |  |  |
|  | Field Deployment System | Configurable workflow that meets FCWS’ installation procedures | Base |  |  |
|  | Field Deployment System | Manage blackout dates (3 days before bill date and 2 days after bill date) | Base |  |  |
|  | Field Deployment System | FDM will status installs with configurable statuses (installed, escalated to utility, meter/service repair, etc.) | Base |  |  |
|  | Field Deployment System | The FDM will manage meter inventory and other AMI equipment, including has a concept of quarantine, check in and check out, and help determine reorder points | Base |  |  |
|  | Field Deployment System | The FDM will track scheduled customer communications. This should include time and method of communication as well as the message communicated. | Base |  |  |
|  | Field Deployment System | The post-installation data feed to the FCWS’ Tyler Munis CIS will be daily, at a minimum. | Base |  |  |
|  | Field Deployment System | The FDM will provide custom reporting or data exports for monitoring and tracking the installation effort | Base |  |  |
|  | Field Deployment System | FCWS project team members or their representatives will be able to access the FDM system directly for monitoring real-time installation progress (daily, weekly, monthly) and to run reports. | Base |  |  |
|  | Field Deployment System | Each work order must include at a minimum, the customer’s address; premise account number; meter location; meter access notes; designation of replacement or retrofit; existing meter and register numbers; meter make, model, and size; most recent meter reading; geo-positioning coordinates; MIU ID number; MIU location; new meter number; and new reading. FCWS desires that all FDM work orders be electronic.  Identify (pre-installation) Work Order form format and field list. | Base |  |  |
|  | Field Deployment System | Completed electronic work orders will include, at a minimum: meter size and meter type, verification or correction of existing meter and account information, materials of construction for upstream and downstream service connections, old meter serial number, final reading on old meter, new meter number, new meter register number, premise ID number, MIU ID number, reading on new meter register, date and time of installation, name of installer, notice of any problems encountered or repairs made, updated customer contact information, and links to digital photographs. All information on the completed electronic work order must be filled out and validated using the Respondent’s quality control process for the installation to be considered complete and eligible for payment. A validated electronic copy of all the work order information must be available via integration with the FCWS’ information systems and via reports self-generated from the FDM | Base |  |  |
|  | Call Center | Respondent will provide call center services for scheduling appointments. Describe in detail the proposed call center services, methods/options for arranging appointments, location of call centers, hours of operation, etc. | Base |  |  |
|  | Customer Communications | The Respondent shall provide customer communication and door hangers for each install or attempted install. At the minimum, propose the following. All communications shall be available in English and Spanish.  - Post card by mail one (1) month in advance with information about the impending meter exchange  - Post card by mail or door hanger two (2) weeks in advance with details on how to arrange for an appointment  - Door Hangers - Install complete/not complete. Installer shall ring the doorbell or knock on the door after leaving the door hanger.  Provide recommended timeline and approach for customer communications for this project. | Base |  |  |
|  | Appointments | Call center will be required to schedule appointments. Is online appointment scheduling available? | Base |  |  |
|  | Installation | Respondent will capture photos as agreed upon such as installation before and after complete. | Base |  |  |
|  | Installation | Installer shall complete meter exchange or register and MIU retrofit for meters that will not be replaced. Describe best practices for retrofits of existing meters. Estimated quantities for full replacement and retrofits are provided in the pricing template. | Base |  |  |
|  | Installation | Once the Meter site has been located, the Installer will assess if the Meter is accessible, or permanently or temporarily inaccessible. Permanently inaccessible means instances where buildings have been torn down and the Meter no longer exists or where accessibility to the Meter cannot be gained during the estimated project timeline, etc. Where a Meter is found to be permanently inaccessible the Installer shall classify it as a Task (RTU). The Installation Subcontractor will provide a picture and comments describing the issue and a recommended resolution. Temporarily inaccessible means where Meters have been enclosed by the customer (built in, built around, in closets, under split level stairways, etc.) that cannot be accessed at the time of appointment. Where a Meter is temporarily inaccessible, the Installer shall leave a door hanger outlining what the property owner must to do to resolve the issue and requests that the customer book an appointment once the issue has been resolved. The Respondent shall finish all contact attempts prior to returning the installation work order to FCWS.  Elaborate on process for temporarily and permanently inaccessible Meters. | Base |  |  |
|  | Installation | Where there is damage that will prevent safe installation and/or operation, or there is an existing safety hazard, the Installation Subcontractor shall engage their appropriate licensed technician to resolve the condition.   Explain Escalation Policy for engaging to licensed technician. | Base |  |  |
|  | Installation | Prior to starting the workflow, the Installer will verify work can be completed. Prior to starting an installation, each Meter site should be checked for damage or conditions that would prevent a successful installation. Explain checks performed prior to Installation workflow. | Base |  |  |
|  | Installation - Lead | Installer shall verify the materials of construction of upstream and downstream service connections prior to performing a meter replacement. Installer shall confirm via use of magnet test or other suitable detection method that neither the upstream or downstream service connection is constructed of lead. If a lead service connection is detected, Installer shall not proceed with the meter replacement and shall notify the FCWS Project Manager. | Base |  |  |
|  | Installation | Onsite Meter ID's will be used to confirm correct location by inputting Meter number to match with found Meter ID in the Meter exchange file from CIS. Discrepancies should be reported to FCWS office team and installation should not proceed unless directed by FCWS. Please explain. | Base |  |  |
|  | Installation | Register readings will be manually entered into the Installer’s handheld for verification. FCWS prefers that a comparison be automatically applied against a previous read with a flagging function to warn the installer to double-check entries which would result in excessively high or low consumption. Does your data collection application allow for this functionality? | Base |  |  |
|  | Installation | The Meter ID's and Endpoint serial numbers are to be collected via barcode scanning for accuracy. Confirm your Installers will have barcode scanners. Please explain. | Base |  |  |
|  | Installation | The Installer will collect images that clearly show all readings for all displayed registers on both the old and new meters. The Installer will collect images clearly displaying the Meter ID's and Transmitter Serial Numbers on all newly installed components. Describe image collection process. | Base |  |  |
|  | Installation | At every meter, a Latitude and Longitude, needs to be collected at a sub foot accuracy. Points that are erroneous will have to be retaken in the field. Describe your procedure to collect and store the points, as well as what devices will be used. | Base |  |  |
|  | Installation | The Installer will install the Meter and Endpoint in accordance with AMI Provider Documentation, FCWS meter installation requirements and Training. Please explain. | Base |  |  |
|  | Installation | Upon completion of each installation, the Installer shall perform a test read of the new Meter Register through the Endpoint verifying successful communication between the register and the Endpoint with an accurate reading.  Describe test read process. | Base |  |  |
|  | Installation | Every endpoint installed must be checked to be sure that it is communicating on the AMI network. At each installation the installer must collect the signal strength on the network. Describe process for checking the endpoint signal strength and how the data will be collected. | Base |  |  |
|  | Installation | The installation team will make a minimum of three attempts to change a Meter before returning the job back to FCWS. All attempts will be recorded in the handheld and identified in a report to FCWS. Following these attempts, the Installation Subcontractor will work with FCWS on one final attempt to gain access to the Meter site. Please explain. | Base |  |  |
|  | Installation | If a newly installed Endpoint is unable to complete the communication, Installer will repeat installation with a different new Endpoint and attempt test read with a second handheld before assigning components for RMA or a site for RTU. Describe process for handling questionable or defective new product? | Base |  |  |
|  | Installation – Endpoint Acceptance | Meter equipment and labor for meter installation will be invoice only after an endpoint acceptance process is completed and verified. Endpoint acceptance will occur monthly. See Attachment C, Requirements #21 – 25. | Base |  |  |
|  | Installation – QA/QC | FCWS requires 5% of installations (sample group must include at least 5% of each are reviewed to assure Quality of work. QA/QC plan should include field visits and random audits. Describe your Quality Assurance/Quality Control program and metrics. | Base |  |  |
|  | Other work at the premise | The installer shall collect information to support the survey for the Lead and Copper Rule. The inlet and outlet service piping and fittings shall be inspected for material identification. Data shall be captured and provided to FCWS daily. See Addendum 3, Question #23 for more details about the survey requirements. Describe recommended approach to accomplish this task and itemize this cost in the pricing forms. | Base |  |  |
|  | Other work at the premise | The installer shall replace all dual check valves and install a check valve if the meter service does not have an existing check valve. Provide the specifications for the proposed check valves.  **Clarification per Addendum 3, Question 20**  Dual Check valves shall be Lead Free – Meter Thread Connection x Female NPT Connection – Domestic Manufacturer Only | Base |  |  |
|  | Other work at the premise | The installer shall replace shutoffs if shutoff valve fails to close or open. Provide the specifications for the proposed shutoff valves. | Base |  |  |
|  | Other work at the premise | The installer shall replace the meter box if meter box is in poor condition. | Base |  |  |
|  | Other work at the premise | The installer shall replace all metallic meter box covers with new composite covers that are approved for use with the proposed AMI system. | Base |  |  |
|  | Other work at the premise – large meters | For large meter installations, new large meters requiring new inlet or outlet piping shall be completed by the installer. FCWS will provide support for large meter installations. | Base |  |  |
|  | Water Service Repair work | The Respondent is required to perform service work with a licensed plumber. The City reserves the right to approve licensed plumbers for work on this project. Describe the process of how repair work will be managed including involvement required by FCWS. | Base |  |  |
|  | Water Service Repair work | Respondent shall provide common equipment for service repairs. This includes but not limited to curb stops, piping, elbows, tees, etc. | Base |  |  |
|  | Return to Utility | Respondent shall provide costs to FCWS for uncompleted meter installations due to return to utility (RTU) – See Pricing templates. Describe the RTU process and how the installation team will ensure RTUs are kept to a minimum. Provide the expected percentage of RTUs that FCWS should expect for a typical AMI installation project. | Base |  |  |
|  | Quality and Safety Program | Respondent will provide a safety program to ensure safe installation practices and safety incident reporting. Describe how safety program is enforced and incidents are tracked, managed, and reported | Base |  |  |
|  | Quality and Safety Program | All Respondents and employees are required to adhere to OSHA Guidelines. The Respondent is responsible for assuring that all employees working on the project has successfully completed safety training.  Provide a curriculum for safety training as well as list any OSHA incidents and violations in the past 3 years. | Base |  |  |
|  | Claims Management | Respondent will provide claims intake services, investigate, and process claims related to the meter installation effort. | Base |  |  |

Meter Installation Services Questions

| ID | Question | Response |
| --- | --- | --- |
| Q1 | Describe strategies on how to minimize RTUs. |  |
| Q2 | Describe how emergencies will be handled during the installation effort. |  |
| Q3 | Do you have a scrap/trade program?  If yes, please describe the scrap/trade in program that would be available to FCWS if awarded a contract. |  |
|  |  |  |