

City of Hendersonville Water and Sewer Advanced Metering Infrastructure (AMI) Planning, Installation, and Program Management for Laurel Park Scope of Work



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## Version 1.5 04/29/2021

Version	Date	Author	Comments
1.1	03/05/2021	AH	Original
1.2	03/19/2021	LN	Proof Edits
1.3	04/09/2021	AH	Scope Updates
1.4	04/14/2021	AH	Scope Updates
1.5	04/29/2021	AH	Scope Revisions





# City of Hendersonville Water Advanced Metering Implementation Scope of Work Task Order 2 - Program Management

## I. Project Overview

The results of the City of Hendersonville (the "City") evaluation on acquisition of the Town of Laurel Park (the "Town") utilities supports investment by the City, serving the approximately 800 customers of the Town. From the analysis of benefits by both the City and the Town, it has been determined there is a clear business case for utility acquisition of Town assets by the City, including full meter replacement and connectivity to the City's existing Sensus AMI network. Automation and standardization of the Town's water meters will reduce read labor costs from manual-heavy work processes like re-reads and manual service orders. Instead, performing ondemand reads while gaining benefits from improved meter reading accuracy and customer service through real-time read data.

The City utilizes Sensus FlexNet AMI technology across its service territory and proposes to expand the technology through the Town's service area. This will require a planned and coordinated effort between the City and the Town to ensure effective assumption of assets by the City and the support of Town utility customers through a properly executed merger of operations. Through proactive planning with City leadership, the following key objectives were identified as necessary for successful transition:

- Develop capital and operational financial forecasts for metering and billing Town accounts
- Conduct data analysis of City and Town CIS (Customer Information System) for proper planning of data ingestion into City billing and customer service
- Develop a customized work order application for meter installation quality controls
- Facilitate network propagation study to validate coverage of 100% Town accounts by AMI system
- Validate network performance and data synchronization and read files
- Manage installation of 100% of Town meters and conversion to City read processes
- Establish and support the implementation of a comprehensive communication strategy to ensure ongoing public trust and support for the project

MeterSYS team members are very experienced in all aspects of AMI project management, including implementation of the Sensus FlexNet AMI solution by successfully overseeing implementation of this technology for various projects since 2013. Our knowledge and experience with Sensus AMI and Ferguson Waterworks are unparalleled in the Southeast. Through MeterSYS Program Management, the City will be assured of receiving a high-performing and operationally-sustainable AMI solution throughout its expected 15-year useful life.

**Summary:** MeterSYS possesses broad understanding of the relationship between emerging technologies and the associated business processes within metering and billing unique to each public utility. To facilitate the effective deployment of advanced metering technology, MeterSYS has developed a proven management *Program of Work* to ensure the utility's goals for high performance of the system, improved operations, and enhanced customer service are achieved. This approach was specifically designed to clearly identify the project steps and highlight the inherent dependencies between technology and business processes predictably and cost effectively and to guide the utility through AMI evaluation, deployment, and optimization.

The timeline for AMI implementation is presented within the Program of Work and accounts for completion of the authorization to proceed and project coordination with the City and Sensus/Ferguson team members. The





installation and acceptance targets support a well-designed and implemented AMI system expanded to Laurel Park customers with a targeted for completion by August 31, 2021.

We propose the following milestones (Project Setup and Activation, Data Integration Management, Network Validation, Testing Phase, Full Deployment, and Installation Project Closeout) and time allocations to execute City-wide deployment of AMI by our experienced team of consultants through professional program management services. It is the overarching goal of each project managed by MeterSYS to seek cooperative solutions between the vendor, the installation/construction team, operational staff, and utility management while always representing the interests of the utility. MeterSYS has significant experience and a proven track record in crafting and executing these cooperative solutions with efforts that are designed to achieve the highest return of service for the investments made by the City on behalf of its citizens and customers.

Milestone	Start	Finish
City of Hendersonville AMI Implementation	Mon 5/10/21	Wed 6/30/21
Project Setup and Activation	Mon 5/10/21	Fri 5/21/21
Data QC and Billing Conversion Planning	Mon 5/10/21	Fri 6/11/21
Network Validation	Mon 5/10/19	Fri 6/11/21
Testing and Limited Installation	Mon 6/14/21	Fri 6/25/21
Full Deployment Phase	Mon 6/28/21	Fri 8/6/21
AMI Installation Project Closeout	Mon 8/8/21	Fri 8/27/21

1 Draft Project Plan by Milestone- City of Hendersonville AMI

The City of Hendersonville Water AMI Implementation program will involve multiple vendors with independent and often competing objectives. MeterSYS has the combined program management expertise to oversee these variables and will be responsible for ensuring the necessary solutions are implemented through effective management. By combining our team's wealth of industry knowledge and Project Management Institute (PMI) approaches, we will work to enhance the outcomes of AMI implementation on operations, finance, and customer service while avoiding risks and exposures common to projects of this significance.

The City is implementing a major change management program of work that influences all aspects of the metering and billing process through the assumption of Laurel Park customers. The Utility is making significant technological enhancements to field and back-office operations to existing Town operations which will have significant influence on Finance, IT, Public Works, and Customer Service, as well as asset and resource management. The proposed AMI project has a 4 month timeline with a focus on continuity of resources and delivery from a competent and dedicated project management team that specializes in AMI technology delivery. MeterSYS is prepared to dedicate project management resources for the entirety of the AMI program of work and is committed to achieving system performance and proper project financial and operational management, ultimately delivering a high-performing and sustainable AMI solution.

## **II.** Program Management Services by MeterSYS

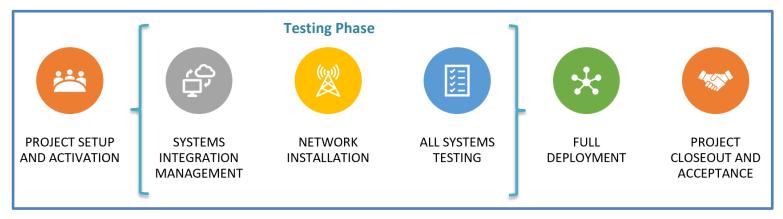
City of Hendersonville is now ready to begin the Implementation Phase through Task Order 2, which involves professional program management services for each of the steps required for successful installation of AMI technologies. These steps include Planning and Design, Installation Management and Quality Controls, and Business Process Change Management Support services for a turn-key advanced metering solution while minimizing resource demands on the Utility Department team already at workload capacity.





## City of Hendersonville Water AMI Program of Work Milestones

Through the Task Order 2 Program of Work, MeterSYS assumes responsibility for managing all aspects of the City of Hendersonville AMI Implementation Program, in cooperation with the Project Team, comprised of MeterSYS consultants, vendor representatives, and City staff. The following Program of Work Plan outlines the general responsibilities of each Step for implementation, but considering the dynamic nature of the project, is not intended to be all-inclusive. MeterSYS professional services will incorporate emerging responsibilities in the implementation of AMI as part of its responsibility to the City to provide a seamless conversion of its metering and billing systems through fixed-base meter reading technology.



2 City of Hendersonville Program Milestones- AMI



## PROJECT SETUP AND ACTIVATION

## **Program Initiation**

This Step serves as the official "kick-off" of the Implementation Phase and the critical foundation for an effective deployment and operation. Step 4 engages City and Town Staff, Sensus/Ferguson, the Installer, and the MeterSYS Project Team, through collaborative project planning, milestone scheduling, roles and responsibilities, and project "housekeeping". Goals of this step include:

- Project Management Systems Development (MS Project, Zoho Project)
- Team Structure with Roles and Responsibilities
- Project Plan Acceptance
- Initial Equipment Order Approval and Execution
- Communication Planning
- Defined Work Flows and Work Order Management Procedures
- Network Validation Checklist
- Large Meter and Special Account Planning (Field Inventory As-Needed, Account Identification)
- Communication Templates Updates







Testing Phase- Systems Integration, Network Construction, All Systems Testing

SYSTEMS INTEGRATION MANAGEMENT Considered the most critical point of the project, this Step engages the responsibilities and the roles of each team member, establishes compliance with project contract service levels, requires effective integrations, and demands proper equipment lead-time management. Key elements of the testing phase include:

- Implement Network Checklist Activities (Propagation Analysis, Backhaul, Tank Modifications, Electric Service Access, New Collector Location Access, and Preparation) AS NEEDED
- Develop and test the connectivity between a small number of test meters, the AMI Headend and the meter data management system
- Conversion plan development of Town read file and CIS data to City operations for management

Coincided with System Integration, installation of additional network devices, if needed, will be coordinated between Sensus/Ferguson, the City, and third-party site managers for the assessment and build-out of collector



infrastructure and associated power and data access. Because network infrastructure generally requires multiple sub-contractors early in the process, the management requirements for this coordination are significant and crucial. Major tasks for this milestone include:



- Complete site plan analysis and Scope of Work documentation
- Coordinate with tank management vendors and third-party site owners/operators for site upfit approvals
- Complete City required power and data (as required) connectivity for each site

**Full Deployment** 

- Ensure RF sweeps are performed according to manufacturer's requirements
- Test RF signal strength and review network data for issues with "reach"

ALL SYSTEMS TESTING



**FULL** 

Once the system functionality and new business processes have been tested, verified, and accepted, deployment of hardware can begin on a large scale.

- Full system functionality is available with quality controls to release devices into the automated billing process
  - Full Deployment is typically managed as a formal construction project with the intent to minimize interruption to daily operations
  - Data and field quality controls will be applied throughout the full deployment phase
  - Weekly team progression meetings will be held, and monthly reports of progression issued to City leadership
  - Financial oversight is applied by MeterSYS analysts for inventory controls, field work order tracking, and invoicing for equipment and labor





## **Program Closeout**



PROJECT CLOSEOUT AND ACCEPTANCE During this phase, the Program Management team will focus on contractual compliance and proper financial tracking and system acceptance for proper program closure through development of a Program Performance Audit to ensure the Utility is capturing the return on its AMI investment. This program will inform on the performance of the organization and the system; identifying strengths and areas for improvement. The Utility can then utilize this information to make operational adjustments to ensure performance. Actions performed during this phase include:

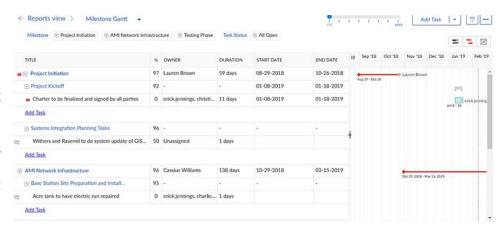
- System punch list management and network performance mitigation
- Scrap management
- Installation data archiving
- Infrastructure final acceptance and Program sign-off
- Leadership and customer communications

## **Program Management Components for the City of Hendersonville**

The MeterSYS dedicated AMI Program Team will conduct field inspections, financial tracking, systems interfacing, quality controls oversight, communication planning, business process improvements, and operational policies and procedures assessment. Our Scope of Work for the City of Hendersonville includes the following management elements:

#### **Program Management Tools**

Our experienced Program Administrator, Program Manager and Project Team will develop a detailed project plan and accompanying project charter to guide and manage all tasks and services associated with the project. The project plan identifies each individual task via a detailed work breakdown structure that includes the level of effort required to complete tasks, a timeline for completion of tasks, dependencies



3 Zoho Program Management System Example

(predecessor and successor relationships), responsible party (vendor, client, etc.) and the status of each task. The plan will be developed in cooperation with the entire project team and managed consistently for performance throughout duration of implementation.

MeterSYS will convert all relevant Vendor activities into a Task and Milestone plan within Microsoft Project and then into Zoho Projects. This on-line, team accessible tool will be used throughout the project to monitor progress and update project stakeholders on project status. The project plan will be maintained by MeterSYS





with regular input from the City project lead and all Vendor project leads. The plan will be available for all team members to view on Zoho, and SharePoint as requested.

MeterSYS will maintain oversight of the Project Budget and will review and present to the City all Vendor invoices monthly as required for proper processing and approvals. It is expected that each Vendor will align their invoice details with the payment milestones identified in each respective contract. Upon receipt of the invoice from each Vendor, MeterSYS will review and determine whether the level of detail and explanation is adequate to support payment. The Vendor will be notified of any deficiencies. Once deficiencies are addressed, the MeterSYS Program Manager will approve and release the invoices to the City Project Lead and Accounts Payable for payment. The MeterSYS Program Manager will assist the City as needed to verify that actual billings align with budget.

### **Project Communications Plan-Internal and External**

The overall objective of a Communications Plan is to promote the success of a project by meeting the information needs of all project stakeholders. The Communications Plan defines the methods of information collection and distribution and outlines the understanding among the project team members regarding the actions and processes necessary to facilitate effective communications for City staff and external audiences. MeterSYS will create and maintain open communications among all stakeholders and vendors throughout the Program timeline.

For external audiences, MeterSYS will work with City project team members to develop a detailed external communications strategy that includes general project information, customer service key messaging, information sheets, web-site resources, social media posts, a customer toll-free phone line for inquiries, project progression information (install map, route schedule) and media releases.

#### Engage Audiences:

- Involve staff and customers in the solution
- Provide customer education
- Understand community culture for communications

#### Planned Approach:

- Pre-project outreach
- Multi-channel usage
- Consistent messaging
- Question anticipation

#### Key Messages:

- Water's value
- Project goals
- Advanced metering benefits
- Customer service enhancements

### **Internal Collaboration**

The primary communications among the project team will be the status meetings, monthly reports, and the project management site, Zoho. The MeterSYS Program Manager will lead formal, re-occurring status meetings with the core team members to ensure that the project tracks to the milestones set forth in the project plan. Meeting summaries and action items will be summarized by the MeterSYS Project Team and published on Zoho for access by the full team. The Status Meeting Agenda will generally include the following:

- Confirm Previous Meeting Action Items with Update Reporting
- Project Status Report- Network Performance, Inventory, Installation Production, Systems Interfacing
- Schedule Compliance
- Milestones/Deliverables Progression

- Issues and Risks
- Resource Review
- Communications
- Project Finance
- > Safety
- Next Meeting Logistics
- > Roundtable

Communication tools include Microsoft Project, Zoho Projects, Dropbox, and JoinMe (a web-based meeting platform). These tools assist us in initiating and tracking projects, capturing data, storing and sharing project documents, maintaining schedules, scheduling events, reporting results and publishing documentation related to





each project and task. MeterSYS team members are in constant communication with various project participants, following up on action items and work products, and fielding questions daily, and these tools enable and enhance the effectiveness of that outreach.

#### **Client-based Advocacy and Internal Reviews**

MeterSYS utilizes the review process in order to keep projects on target and the goals of the client in the forefront. Our Program Manager conducts an internal review with the program team to ensure that scope, costs, and timeline are being managed appropriately. Documents are submitted for team review to ensure completeness before being submitted to management for final review and approval. Each document is reviewed by the Management Team and Executive Team to ensure completeness and accuracy.

#### **Issue and Risk Management**

The goal of the team is to assess any issues arising from the Project and understand its impact to the City of Hendersonville AMI Implementation Program of Work. We work with the Utility and Vendors in a cooperative manner to resolve issues in a satisfactory manner in order to maintain internal continuity of the project as well as public trust. The key to this process is to remain objective, address the issue as early as reasonable and practical, and work to mitigate the problem prior to it becoming a risk to the Program of Work.

## **Change Management**

Deviation from original scope can be caused by new requirements, unforeseen circumstances, or simply the desire to take advantage of a new technology or cost reduction opportunity. MeterSYS employs standard change management practices of assessing the change and then making a recommendation to stakeholders. The assessment of a change includes impacts to cost, resources, and duration (schedule). The recommendation is qualified against the original goals and objectives of the project to ensure there is alliance and a strategic fit. The decision to include the change in the project is ultimately a City decision. Our goal is to ensure the Utility is adequately educated and equipped to make this decision.

#### **Quality Control (QC)**

Each Vendor will be responsible for QC efforts and results as it relates to their contracted scope of work with the City and MeterSYS will ensure management elements are in place to hold vendors accountable for QC. At a minimum, it is expected that Vendors' QC efforts will consist of plans, procedures, and the organization necessary to assure adequate control (inspection) and delivery of quality for materials, workmanship, installation procedure compliance and operations covering both on-site and off-site work. Vendors will be required to perform their own audits to assure compliance with the requirements of their quality program. At a minimum, Vendors will be expected to provide and adhere to the following:

- QC documentation to cover the scope of the work
- Designated QC personnel
- Checklists approved by person completing the work and by QC personnel accepting the work

## Quality Assurance (QA) and Quality Management (QM)

The MeterSYS Program Manager will have responsibility for the overall Quality program in close coordination with the City Project Lead and Project Team. Management responsibility encompasses establishing a high-level presence and environment to facilitate activities and a fundamental commitment to quality including, but not limited to:

 Development and approval of mutually agreed upon, well-defined contract requirements that include clearly defined roles, responsibilities, and reporting





- Contract language highlighting that vendors must act in an independent, professional manner regarding quality of their deployments
- Periodic meetings with the Project Team and reporting to track quality status
- Review of vendor project quality control plans, test results, and status reports
- Conduct periodic QA audits of Vendors' QC activities. Oversight will take the form of checking contractor supplied documentation; witnessing contractor operations, inspections, and tests; performing independent inspections and tests to verify contractor results

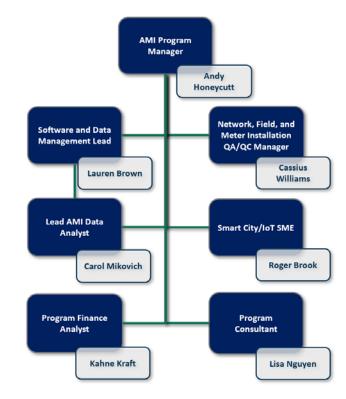
All the Project Management elements included in the section serve to outline the main categories of responsibilities of the MeterSYS team throughout the Implementation Phase. With the goal of delivering the project on-time and within budget, and bringing valuable experience from implementing multiple, successful AMI installations, the MeterSYS team will augment internal staff to shoulder the day-to-day management of the project and ensure the complete satisfaction of all City stakeholders.

#### **Project Personnel**

The City of Hendersonville AMI Project will involve multiple vendors with independent and often competing objectives. MeterSYS has the combined program management expertise to oversee these variables and will be

responsible for ensuring the necessary solutions are implemented through effective program management. By combining our team's wealth of industry knowledge and Project Management Institute (PMI) approaches, we will reduce the organization's overall program risk. MeterSYS provides the Department with structured Program Management to ensure that all project components are executed in an organized fashion. Our goal for this project is to deliver a high-performing AMI metering system for Department on schedule and within the program budget, while limiting impacts to the Department's internal staff.

We are fortunate to have assembled a great team of dedicated professionals with the experience, expertise, partnerships, and proven methodology for industry-leading AMI feasibility analysis and metering program management. The MeterSYS team is committed to providing the Department with our most experienced consultants to fully leverage its investment in infrastructure, technology, and support resources for enhanced service delivery and optimized metering and billing system management.



4 Proposed Organizational Team for City/Town Project

#### **Summary of Key Project Personnel Roles**

**Program Manager, Andy Honeycutt:** The Project Manager will oversee the project team on all aspects of project implementation in coordination with the vendor point of contact (POC) and the City's dedicated project lead. The Project Manager is responsible for all internal and external communications, coordination of tasks within the





program plan, quality controls, and issues resolution. This position is responsible for managing requisition issuance and data compilation of all business units supporting the feasibility analysis, procurement and vendor selection, project implementation planning, and project close-out.

Software and Data Management Lead/Business Process Consultant, Lauren Brown: The Business Process consultant is responsible for supporting the organizational business process shifts in acceptance of Town read data and into the City's AMI environment. Additionally, these positions will support the development of the communications plan in cooperation with the project team and City public relations staff. Team members will provide general oversight to planned messaging, help desk and issue response, and internal/external educational sessions on water metering technologies, resource conservation, and utility operations.

**Data Analyst, Carol Mikovich:** The Data Analyst is responsible for coordinating all data request and responses and properly organizing the data within the MeterSYS project management tool for use in technology training, systems interfacing, and organizational impacts of AMI. She will be also providing support for data collection and remittance to the Project Manager for all critical customer service business processes, policies, rates, issues, and operational opportunities as well as assisting in the coordination of project management elements including meeting notes, scheduling, task assignments, and project reporting.

Meter Services Manager, Cassius Williams: This position is responsible for the assessment and planning for conversion of direct read and AMR processes to AMI from pre-deployment to post-deployment for both water utilities. The Meter Services Managers seek to identify cost-saving opportunities through planned meter implementation and the correlation of data between field installation and back-office/CIS data management. The role also provides direct vendor oversight including field inspections, safety, and quality control measures. Team members will be heavily involved in the development of specific Department requirements for field activities including execution of communication responsibilities, utility customer engagement, issue resolution, and field risk avoidance.

**Program Consultant/ Communications and Public Relations Manager, Lisa Nguyen:** This position is responsible for program management and the overall management of community engagement throughout the duration of the project. Working in cooperation with the Project Manager, this position responsibility will ensure the Communications Plan is being properly executed and that all issues are addressed and communicated according to levels of severity. Communication tools may include public forums and media interactions as directed or authorized by the City. This position also serves as an assistant to the Program Manager for all tasks, assignments, accountabilities, and documentation.

**Smart City/IoT Lead, Roger Brook**: This position is responsible for identifying expanded "Beyond the Read" opportunities aligned with City objectives that are correlated to the acquisition of Town utilities or that serve the broader objectives of the City.

## **AMI Project Management Task Order 2 Professional Services Fees**

MeterSYS appoints executive-level professionals to each of its projects to ensure that each initiative efficiently coordinated and executed. For the City of Hendersonville AMI Implementation Program, MeterSYS proposes a collaborative team of experienced metering and utility operation professionals to define a metering solution roadmap that considers both financial and operational best architecture design. This team will be dedicated to the delivery of effort and expertise required for successful delivery of AMI technology to the City in consideration for certain fees applied to each milestone and tasks.





The task and milestone fees are based on turn-key professional services for the project up to 4 months in duration. Should the project extend beyond 4 months from Authorization to Proceed, MeterSYS and the City will evaluate the terms and expectations of this Program of Work against delays in the project extending beyond the target completion and adjust accordingly the professional fees associated with the Program of Work to the acceptance of both the City and MeterSYS.

The following table provides information on pricing for each major task of the implementation scope of work and general assumptions based on the recommended approach.

Professional Service Breakdown by Milestone

Key Milestones	Cost	
Project Setup and Activation	\$7,420	
Testing Phase: Network, MDMS	\$6,040	
Testing Phase- All Systems Testing	\$10,950	
Full Deployment	\$16,860	
Project Closeout and Acceptance	\$5,940	
Total	\$47,210	
Expenses(Reimburse)	\$2,361	
TOTAL	\$49,571	

The contract value for program management services is established based on the proposed scope of work comprising 305 hours of consulting time effort. Should additional elements of the project be added to the scope of work then the agreement shall be amended based on the following hourly rates:

Project Team Member Hourly Rate Summary- General Rate Schedule	Consultant Name	Hourly Rate
Program Manager	Andy Honeycutt	\$210.00
Software and Data Management Lead	Lauren Brown	\$180.00
Field Manager	Cassius Williams	\$150.00
Smart City/IoT Lead	Roger Brook	\$150.00
Lead Data Analyst	Carol Mikovich	\$140.00
Program Consultant	Lisa Nguyen	\$140.00
Program Finance Analyst	Khane Kraft	\$110.00





## III. Authorization

AUTHORIZATION BY METERSYS:	
The scope of work contained in Task Order 2 as noted herein is	authorized by:
Andy Honeycutt, Managing Director	 Date
MeterSYS	
ACCEPTANCE BY THE CITY OF HENDERSONVILLE:	
Task Order 2: Project Management - AMI Implementation	
	<del></del>
Authorized Representative City of Hendersonville	Date
"This instrument has been pre-audited in the manner requi	red by the Local Government Budget and Fisco
Control Act"	,
City of Hendersonville Finance Officer	Date





## **Attachment A: Assumptions**

Assumptions related to in-scope services and/or components include:

- The target for starting Task Order 2 will be May 10, 2021. MeterSYS and the City project team members will work onsite at City facilities and/or MeterSYS facilities to support the engagement as needed to meet project schedules and milestones with an expected completion target date on or before August 31, 2021.
- The project scope contained within this proposal is based on a general understanding of the City metering environment and is consistent with other projects in both size and scope. As the proposal is based on time allocations of MeterSYS, any adjustments to scope will be directly related to billable time associated with the changes. Additionally, any delays resulting from internal resource constraints, vendor responsiveness, decision-making, or other conflicts beyond the control of MeterSYS will impact project costs and schedule.
- The City will make available to the firm all relevant information so that effective and proper program management may be performed. This information shall be provided in a timely manner in order to not adversely influence the approved project plan and schedule.
- The City will appoint a Project Lead who will serve as the primary point of contact for MeterSYS throughout the engagement. The Project Lead will assist in organizing the participation of staff, management, and stakeholders as needed. The Project Lead will facilitate the operational planning process and the achievement of goals and objectives of the project.
- The City and its project sponsors and team members will assume a proactive role in actively participating in project objectives, milestones, and defined project responsibilities.
- The City will take an active role in the engagement of its third-party service providers especially for tower/tank structures, utility billing software, and local/regional data and power providers.
- The City will provide a timely decision-making, issue resolution and escalation process to prevent delays in the progress of the project. The City project team will be empowered to make critical and necessary decisions to expedite resolution of issues.
- Over the course of the project, the City will provide adequate working facilities, and support equipment such as telephones, photocopiers, fax machines, and internet access for the team members and consultants onsite.





## **Attachment B: Task Order Authorization Form**

Task Number	Approval Date	Issued By	
NC21.04.03.21		Andy Honeycutt	
Program Name	Program Description	MS Workbook Reference	
City of Hendersonville War Department AMI Implementati Program Management	· '	NC21.03.02	
Task Cost	Start Date	Target Completion Date	
\$49,571	05/10/2019	08/31/2021	
Resources and Rates Assigned	Task Milestone Summary from Scope of	of Work	
Andy Honeycutt \$210.00 Lauren Brown \$180.00 Cassius Williams \$150.00 Roger Brook \$150.00 Carol Mikovich \$140.00 Lisa Nguyen \$140.00 Khane Kraft \$110.00	<ul> <li>I. Project Setup and Activation</li> <li>II. Testing Phase: Network,         MDMS</li> <li>III. Testing Phase- All Systems         Testing</li> <li>IV. Full Deployment</li> <li>V. Project Closeout and         Acceptance</li> <li>VI. Total         Expenses</li> </ul>	\$7,420 \$6,040 \$10,950 \$16,860 \$5,940 \$47,210 \$2,361	
oversee all aspects of metering syst installation, communications, qualit management of project expenditure	on with, and in leadership for, the City of Hei em conversion to full AMI functionality inclinate by control, software integration, systems tr is for the Town of Laurel Park utility service location City as outlined in the Task Order 2 Scope of Notes to Scope of Notes and Scope of Work.	uding network installation, field raining, reporting, and financial ocations. MeterSYS provides full	
<b>Delivered by</b> MeterSYS	Date		
Approved by	Date		





City of Hendersonville Phase II- Implementation	Allocated Value	Hours
Project Setup and Activation		
Project Management Systems Setup (MS Projects, Zoho Reporting); Team Access and Training; Data Quality Analysis (Discovery)	\$700	5
Project Kickoff and Orientation- Project Team; Roles and Responsibilities Review, Project Reporting and Project Charter with Roles and Responsibilities Finalized	\$4,200	28
QA/QC Plan Developed for Network, Interfacing, and Installation	\$1,800	2
Initial Material Order Approval/Logistics Planning for Material Management	\$720	4
Subtotal	\$7,420	39
Testing Phase: Network, MDMS		
Network Site Survey, Power and Backhaul Systems Detailed Installation Planning	\$960	5
Network Installation Management- Site Preparation and Oversight	\$360	2
Test Meter Installs Complete and Assessment of Reporting on MDMS	\$2,480	16
Phase Program Management and Reporting	\$2,240	14
Subtotal	\$6,040	37
Testing Phase- All Systems Testing		
Communications for Full Deployment	\$2,960	20
Base Station, Antenna, Electrical and Backhaul Installation and RF Performance Checks (RF Sweep, RSSI Validation)	\$1,110	7
Critical Customer Identification and Management	\$440	4
Develop Meter Swap Form with Work Flows	\$360	2
Install Schedule Developed w/Route and Progression Percentage	\$440	4
Install Checklist Developed/Approved	\$360	2
Phase Program Management and Reporting	\$5,280	34
Subtotal	\$10,950	73
Full Deployment		
Non-Standard Installation Management; Return to Utility/Skips Management; Data Quality Management (Field Installs, MMCO, Sync File)	\$2,880	20
Conduct Meter and Network Performance QC	\$6,960	48
Phase Program Management and Reporting	\$7,020	50
Subtotal	\$16,860	118
Project Closeout and Acceptance		
Meter Punch list / Clean up	\$1,920	12
Infrastructure Acceptance (Collectors, Radios, Meters)	\$720	4
Phase Program Management and Reporting	\$3,300	22
Subtotal	\$5,940	38
Phase Total: Project Management	\$47,210	305
Expenses	\$2,361	
With Expenses	\$49,571	