Aqua-Metric Sales Company
6700 Guada Coma Drive, Schertz, TX 78154
Phone: (210) 967-6300 • Facsimile: (210) 967-6305

City of League City, Texas
Purchasing Department
300 West Walker Street
League City, Texas 77573
Monday – Thursday: 8am – 6pm
Friday: 8am – 12pm

Request for Proposals (RFP) #17-037
Meter Data Management System (MDMS) and Customer Portal

Due: June 27, 2017 at 2PM

Primary Contact:
Justin Hamilton
Manager of Strategic Sales
Phone: (979) 220-4492
Email: justin.hamilton@aqua-metric.com

Proposal Preparation
June 23, 2017

Aqua-Metric Sales Company *6700 Guada Coma Drive, Schertz, TX 78154 • Phone: (210) 967-6300 Facsimile: (210) 967-6305*

June 23, 2017

Purchasing Department
City of League City
300 West Walker Street
League City, Texas 77573

RE: RFP MDMS and Customer Portal

To Whom It May Concern:

Thirkettle Corporation dba Aqua-Metric Sales Company is pleased to propose our complete Meter Data Management and Customer Portal solution to the City of League City in response to their Request for Proposal No. 17-037, Meter Data Management System (MDMS) and Customer Portal due June 27, 2017.

Aqua-Metric has recently had the privilege of partnering with League City in developing and implementing the City's current Sensus FlexNet AMI System. As a result, League City is recognized by Aqua-Metric and Sensus as a leading smart-city, empowering other Cities to take their lead into evolving AMI technologies. We are excited to propose the newest tier of Sensus FlexNet showcasing Sensus Analytics Software and Consumer Portal, catapulting the City to achieve a complete AMI resource management solution.

Sensus FlexNet is factually, by the numbers, the most powerful and protected migratable system in the industry based on its Primary Licensed Frequency" resulting in two-watt transmission power from each of its two-way or pingable transmitters. This unmatched power leads to drastically reduced infrastructure requirements and maintenance costs for utilities. Sensus Analytics software with Consumer Portal will seamlessly integrate into the City's current AMI System without the need for added infrastructure or changes in equipment.

We understand additional options are being evaluated by City of League City, but rest assured, when a city chooses a partnership with Aqua-Metric and Sensus, they are receiving the most proven technology with best-in-class service that does not have an expiration date. The City of League City will receive the most accurate water meters, transmitting data over the most secure AMI network, requiring the least amount of infrastructure, properly and supported post-project by our In-House Technology Support Team. We appreciate the opportunity and thank you in advance for your time and thoughtful consideration.

Sincerely,

Justin Hamilton - Manager of Strategic Sales
Aqua-Metric Sales Company
justin.hamilton@aqua-metric.com

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Company Overview

Thirkettle Corporation has served the utility industry for more than 20 years and is the exclusive Authorized Distributor for Sensus, USA. Thirkettle Corporation originally served as an authorized distributor for Precision Meters in 1992. Founded in Ontario, CA, Thirkettle Corporation quickly became entrenched in the water metering industry approaching 1999 when Precision Meters was acquired by Sensus Metering Systems. Soon thereafter, Thirkettle Corporation became the authorized Sensus distributor in Southern California. It was at this point Thirkettle Corporation began to drive the marketplace from a direct read brass commodities business to technology driven Automated Meter Reading (AMR) systems. Thirkettle Corporation rapidly became the industry leader selling more AMR radios in Southern California than all competitors combined. As result of continued growth and success, Thirkettle Corporation transitioned its headquarters and primary warehouse into a larger facility in Riverside, CA, becoming the sole Sensus distribution in Southern California. Thirkettle Corporation continued to drive the industry and fully committed the organization to Sensus' progressive direction within the AMI market.

Aqua-Metric Sales Company Overview

As Sensus acquired Precision Meters, Thirkettle Corporation created a subsidiary to act as sole Sensus distributor for its allotted states. Aqua-Metric Sales Company became the exclusive Authorized Sensus Distributor, and has been so for the past 16 years. Aqua-Metric came into the Texas Market in 2007, establishing a distribution center in Schertz – just North of San Antonio – as well as opening a satellite office in Arlington, TX. In total, Aqua-Metric has implemented over 125 AMR / AMI systems, seventy-three of which are AMI Systems; as well as, supporting a multitude of other metering needs. Clint Arnold, National Sales Manager, leads the Aqua-Metric team, who will work together to facilitate a seamless deployment from project inception and preparation to implementation, installation, and support.

Corporate Office
4050 Flat Rock Drive
Riverside CA 92505
P: (951) 637-1400
F: (951) 637-1500

Texas Office
6700 Guada Coma Drive
Schertz TX 78154
P: (210) 967-6304
F: (210) 967-6305

Louisiana Office
13406 Seymour Myers, Unit
8 Covington LA 70433
P: (210) 967-6304
F: (210) 967-6305

Aqua-Metric currently employs 35 dedicated full-time staff members, each performing individual roles based on specific abilities; however, each staff member is also flexible in their knowledge base, allowing fluidity from one department to another. Our employees are based throughout multiple states, allowing for the best coverage of our distribution area. All employees receive ongoing product training from Sensus to ensure that they are knowledgeable in the full Sensus product line.

Aqua-Metric has been recognized by Sensus as an Authorized Value-Added Reseller focused on customer service. With the advent of so many technical systems, Aqua-Metric has developed and expanded its technology department to implement and service Sensus AMI/AMR systems. Aqua-Metric's Technology Team will provide in-house support to manage City of League City's deployment throughout the project lifecycle, ensuring the success and overall health of the system. The City will have peace of mind knowing our local Technology Team can remotely access the system instantly or be on-site to troubleshoot any concerns. Mike Wood, PMP, Chief of Technology, leads this team. Project management experience and local support are keys to a successful project, whether it involves product purchase or full turn-key implementation.

Sensus USA Overview

Grounded in over a century of experience in metrology, Sensus has become a global leader in utility management. What began as leadership in water metering in the late 19th century grew to include leadership in gas and electric metering, and finally Smart Grid technologies.

Born from the Pittsburgh Equitable Meter Company of Uniontown, Pennsylvania, the company grew steadily, eventually gaining the attention of a London-based company that purchased and changed the company name to Invensys. From here, the company's entry into emerging utility markets grew steadily. Invensys later became Sensus, still reaching farther to drive better utility solutions.

As the needs of the modern utility market changed, Sensus has been there, fostering and collaborating fully in industry advancements. Their approach is still borne of their original name – Equitable. Sensus continues to dedicate resources and expertise to equitable solutions for all customers.

> Today, Sensus provides real-world, proven solutions for high-value metering, Automatic Meter Reading (AMR), and Advanced Metering Infrastructure (AMI) solutions for water, gas, electric, and heat utilities. Sensus will support League City with enhanced control and automation of your network infrastructure via innovation, technology, and information.
>
> Sensus will reach to remain the measure of the future, aggressively pushing the boundaries of utility management with sophisticated solutions that offer you unprecedented insight and efficiency.
>
> Sensus' recent acquisition by Xylem, headquartered in Rye Brook, NY, will enable them to meet the evolving needs of our water and energy customers with even greater excellence. This transaction will allow for continued investment to drive growth through technology leadership, quality, and operational excellence, and the delivery of best-in-class electric, gas, water, and lighting solutions to our customers.

Sensus emerged very quickly as an industry leader in AMI, and has implemented many projects consisting of 300,000 meters or more. Examples include, but are not limited to,

Alabama Power (1,619,000 meters)
Portland General Electric (840,000 meters)
Alliant Energy (1,400,000 meters)
NV Energy (1,455,000 meters)
PECO (2,100,000 meters)

To date, Sensus has:

Executed contracts for over 37 million endpoints (electric, gas, and water)
Deployed over 18 million endpoints (electric, gas, and water)
Deployed over 12 million electric endpoints
Deployed over 75 electric-only FlexNet networks
Deployed over 60 FlexNet networks covering two or more service types

Sensus takes its utility industry leadership and commitments very seriously, as evidenced by their continued growth and accomplishments. With the acquisition of Telemetric, Sensus has become the unquestioned leader in AMI and Automation Control (AC) water production and wastewater solutions and services. Sensus is also an active contributor to the Security, Metering and AMI standards that NIST and NEMA are currently establishing for the industry.

Sensus has traditionally had a very strong balance sheet, with revenues near $1 billion annually, and this has been further strengthened by Sensus' acquisition by Xylem Inc. on November 1, 2016. Xylem's annual revenues are approximately $4 billion. The combined companies (Sensus and Xylem) deliver approximately $5 billion in total revenue.

Efficiency and Benefits

Advancements in automated technology have contributed to substantial changes in utility operations allowing a migration from multi-step manually captured information to complete one-click communication at a centralized location. Sensus FlexNet AMI is factually, by the numbers, the most

powerful and protected migratable system in the industry based on its Primary FCC Licensed Frequency, consistently delivering 2-Watt of transmission power from each of its two-way or *pingable* transmitters always.

As Advanced Metering Infrastructures grow and produce increasing amounts of data, utilities have a growing need to efficiently turn the data into useful information. With minute-by-minute, system-wide operational views, Sensus Analytics software is the answer for any utility seeking to maximize the value of the data collected from various intelligent devices on their distribution system. Analytics organizes data acquired across water, gas, and electric network communications platforms to drive revenue, improve customer service, and promote better planning. Upon data collection, the system's flexible user interface presents information in detailed reports for a utility's use. Sensus Analytics enhances the capabilities of Sensus' intelligent meters and FlexNet communications network, so utilities maximize the return on infrastructure investments over time.

FlexNet's unmatched transmission power leads to drastically reduced infrastructure requirements, resulting in substantially lower energy, operational, and maintenance costs. Utility account information and usage, as well as performing modifications and adjustments, are accessible at your fingertips with instantaneous results, thus greatly reducing resources required to monitor your distribution system while maximizing efficiency. Accurate real-time data transmitting over the most secure network will enable the City of League City to immediately address concerns and accelerate resolutions. This ability to rapidly acquire information is not only good for your customers but for employees alike.

Conclusion

As your exclusive Authorized Sensus Distributor, Aqua-Metric provides essential product, service, and support to help retrieve and interpret utility information consistently to improve operational efficiency and reduce environmental impact. At the forefront of advancements in the utility industry for more than 125 years, Sensus provides industry leading technology with residential water and meter product lines that address critical challenges for utilities, including aging utility infrastructure and resource conservation.

The objectives set forth by the City of League City will excel with Sensus FlexNet Meter Monitoring System. Aqua-Metric, with Sensus, is uniquely positioned to offer an integrated metering reading solution, supported by full turn-key project management and IT integration. This one source solution will help City of League City maximize the full system benefits in a shorter timeframe while protecting your investment from any potential hidden costs.

Experience, Past Performance, and Capacity

Thirkettle Corporation has served the utility sector for more than 20 years, providing innovative solutions necessary to enhance and maximize utility efficiency. We have achieved this through metering, Automated Meter Reading (AMR) Systems and Advanced Metering Infrastructure (AMI) Systems, conservation products and Resource Management Solutions for water, electric, and gas distribution systems. The Thirkettle Corporation family of companies is comprised of experienced and dedicated individuals providing our customers with the knowledge, integrity, and insight required to implement efficient and reliable Resource Management Solutions. Our keen focus on customer satisfaction ensures our service commitment to provide, install, manage, and support all components related, throughout project and system life-cycle.

As an exclusive distributor for the most innovative metering and system manufacture, Aqua-Metric recognized the necessity to develop an in-house Technology Team to provide the most responsive and comprehensive customer support. Thus, Aqua-Metric developed and expanded its Technology Department to implement, service, and support Sensus AMI/AMR systems throughout their project lifecycle. In March 2012, Aqua-Metric became one of the first Sensus Certified Value-Added Resellers to further support and maintain Sensus technologies deployed in California, Texas, and Louisiana.

Since 2007, Aqua-Metric has deployed seventy-three FlexNet Systems and continues to support more than ninety AMR Systems with more than 600,000 Radios and SmartPoints shipped. Through dedicated and highly motivated personnel, Aqua-Metric has catapulted itself into the forefront of the metering industry and has become one of Sensus' most recognized distributors.

Suited for City of League City

Thirkettle Corporation has been involved in over 125 AMR and AMI system deployments, sized from 300 meters to more than 100,000 meters, and has served the utility sector in multiple states for over twenty years. Our all-inclusive, turn-key approach makes us unique to the industry and our customers, whom we view as Partners. As the primary system integrator for the City of League City's MDM and Customer Portal Project, Aqua-metric will work to facilitate a seamless deployment from project inception to preparation, implementation, and support. With unique insight that is needed to attain your AMI goals and through hands-on experience and dedicated work ethic, Aqua-Metric ensures successful collaboration with the City of League City, present and into the future.

Enclosed within our response is Aqua-Metric's extensive Client Reference List showing our diverse customer base ranging from straightforward drive-by water options to elaborate, complete turn-key water, gas, and electric Advanced Metering Infrastructure solutions. We hope this emphasizes our vast knowledge and ability to help guide the City of League City in every avenue regarding AMI. As Aqua-Metric has grown alongside the AMI industry, we have obtained a great wealth of knowledge allowing us to efficiently and effectively work alongside Cities just as League City, to facilitate project goals.

Our most recently completed turn-key AMI project is the City of Cedar Park, Texas. Aqua-Metric was selected by the City of Cedar Park to manage all aspects of their Sensus FlexNet Advanced Metering Infrastructure System implementation and city-wide meter installations. Aqua-Metric successfully integrated Sensus' proprietary MDM software, Sensus Analytics, and Tyler Incode, Cedar Park's billing software; as well as, integration and setup of Sensus' Consumer Portal, all while successfully performing meter installations and AMI implementations. We are able to seamlessly perform these services due to our in-house support team who is dedicated to Aqua-Metric customers only.

Enhanced Customer Service

Aqua-Metric has a dedicated in-house Technical Support division whose sole responsibility is to assist Aqua-Metric customers with their AMI and AMR systems. This element stands Aqua-Metric apart from other manufacturing companies, as, should an emergency situation arise, a member of the Aqua-Metric team can be available for immediate support. Additionally, Sensus has a dedicated telephone support staff available, with around-the-clock support. Customer support and a fluid partnership is of the upmost importance to each member of the Aqua-Metric team and we will do our best to ensure all the City of League City's needs are met to ensure the best running AMI System possible.

Ready for the Future

Aqua-Metric and Sensus understand the need of possible future system expansions. To this, we have the technology and infrastructure available to provide City of League City with the ability to grow. To completely fulfil the requirements of future developments we would need to better understand the scope of what City of League City desires. Examples of future expansions FlexNet can offer the City include, but are not limited to: Distribution Automation, SCADA Integration, Street Light Monitoring, integration into various third-party platforms such as Cisco, Direct Load Control Devices for Electric Metering, Demand Side Management for Electric Metering, Home Area Networking (and Zigbee) for Electric Metering, Power Outage and Restoral Notifications for Electric Metering, and more. An overview of these selections can be provided to the City upon request.

Sensus USA Performance

With operations and service facilities on five continents, Sensus is a global leader in utility infrastructure and resource conservation. Sensus offers both 125+ years of experience and focus on the future. Helping utilities and consumers make the most of finite water and energy resources takes more than just innovative technology and know-how. Sensus delivers reliable, flexible, and proven products and solutions that provide advanced measurement, data collection, analysis, and control capabilities to help customers improve operational efficiency while reducing their environmental impact.

AMI Projects

Sensus currently has more than 700 AMI projects, including over 90 achieved in the last two years, either completed or in deployment; this is substantial, applicable first-hand experience of all components of an AMI project. The most common business model for the 700 projects is utility owned, operated, and maintained with support from Sensus and local distribution, such as Aqua-Metric. In addition, Sensus has partnered with customers to implement other successful business models. Sensus is the leading manufacturer in North America for both AMI and DA hosted services—currently hosting 280 US AMI customers, 42 Canadian AMI customers, and 249 US DA customers. As of now, Sensus has approximately 20 ongoing projects with over 150,000 endpoints, and 7 projects over 750,000 endpoints.

To date, Sensus has sold approximately 37 Million endpoints and 80 Million metering devices.

AMI and Software-as-a-Service Managed Services

Sensus has extensive experience in managing FlexNet AMI Systems with Software-as-a-Service (SaaS) for utility customers, with more than 280 AMI-managed customers. Sensus manages AMI systems from multiple state-of-the-art data centers, providing customers with a cost-effective, low maintenance, and secure solution. A Sensus-managed AMI system maintains all the operational and control features of a utility-hosted system, and provides additional benefits associated with a professionally managed network operations center.

Minnesota Power (MNP) and the Knoxville Utility Board (KUB) have been using Sensus' SaaS solution for over 6 years. Sensus' largest AMI implementation is Southern Company with nearly 4.3 million endpoints. Southern Company services a total of 3.8 million residential meters and 500,000 commercial meters. These meters cover an area of 120,000 square miles. The FlexNet Head End System is fully owned and operated by Southern Company.

Sensus' second largest AMI implementation is PECO, an Exelon Company, has a total of 1.8 million electric meters, as well as 500,000 gas meters and SmartPoints in service today. These meters cover an area of 2,100 square miles. The FlexNet Head End System is fully owned but operated and managed by Sensus.

Sensus also has 9 additional utility customers with over 500,000 AMI meters installed.

Some of Sensus' larger customers using SaaS are:

- PECO: 1.6 million electric and 526,00 gas endpoints in a SaaS environment
- PowerStream, Ontario Canada: 332,000 electric endpoints, 62,000 water endpoints. PowerStream is one of Sensus' oldest SaaS and Managed Services customers and has been using these services for more than 6 years
- Lakeland: 125,000 electric endpoints
- Albuquerque Bernalillo County Water Utility Authority: 150,000 water endpoints
- Eastern Municipal Water District 140,000 water endpoints

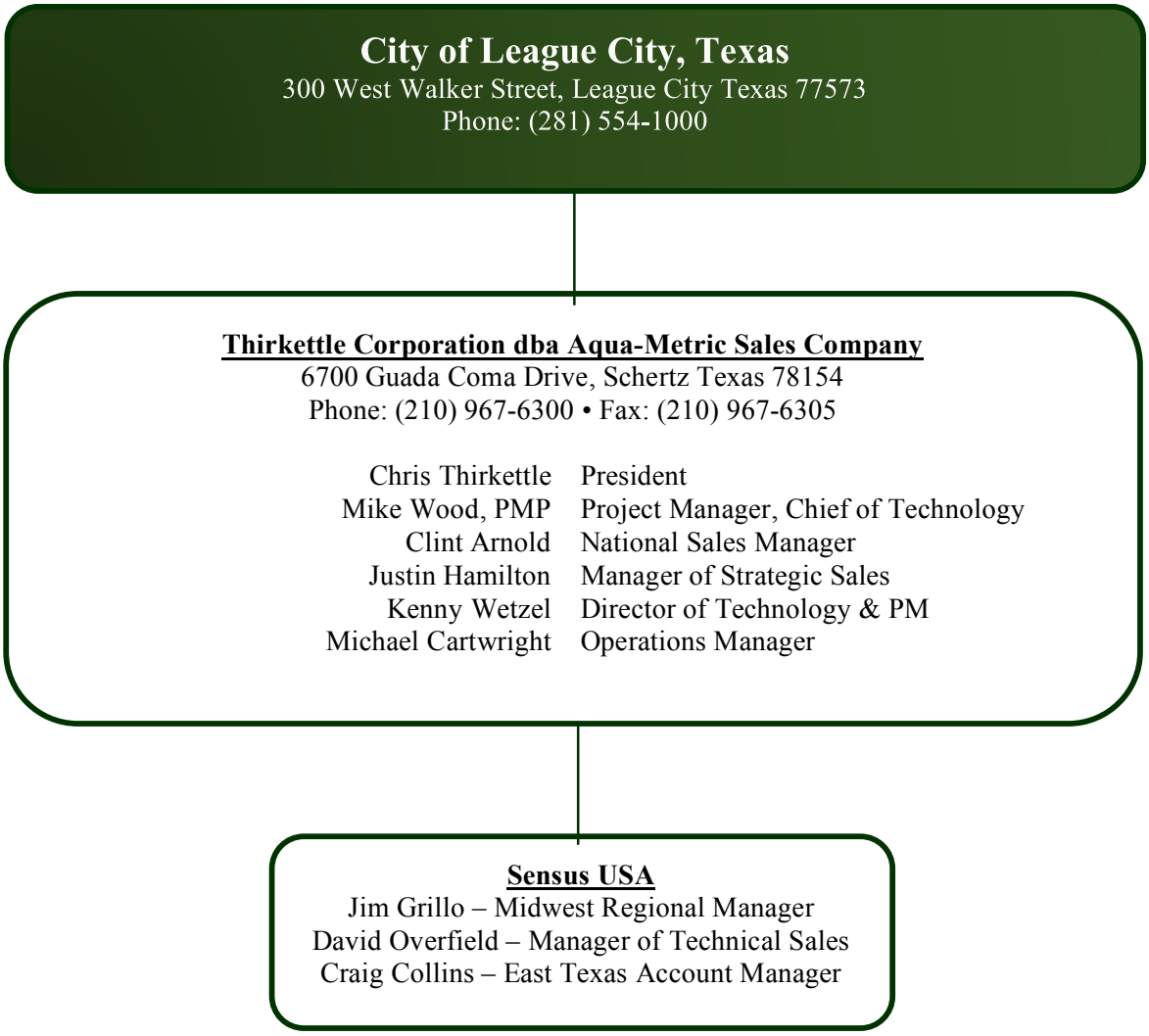
SaaS Customers:

Electric – 32	Electric/Gas – 1	Electric/Water – 17
Electric/Water/Gas – 7	Gas – 2	Gas/Water – 2
Lighting Control – 1	Water – 196	Water/Electric – 3
Water/Gas - 6	Water/Electric/Gas – 3	500 SaaS customers in the US

SaaS Meters:

Water – 3.1M	Gas – 821,458	Electric – 3.9M

Organizational Chart



Staff Qualifications and Experience

Justin Hamilton — Manager of Strategic Sales

- Employed with Sensus USA for three years before joining the Aqua-Metric team
- Metering/AMI Specialist for six years
- Sold and Managed numerous turnkey AMR/AMI projects throughout Texas
- Active member of the Texas Water Utilities Association
- Educational Background
  - Bachelors of Arts in Sociology; *Texas A&M University*

Key Role with the City: Justin Hamilton will be the City's main contact for product support and overall development of the City's AMI Project.

Clint Arnold — National Sales Manager

- Employed with Aqua-Metric for seven years
- Managed over 60 AMI projects
- Educational Background
  - Bachelors in Communication; *Texas Christian University*

Key Role with the City: Clint Arnold oversees all product sales and support for Aqua-Metric.

Mike Wood, PMP — Project Manager and Chief of Technology

- Employed with Aqua-Metric for six years
- Over 30 years of experience in technology
- Managed over 40 AMI/AMR implementations
- Certifications
  - Project Management Professional (PMP), Certified Sensus Project Manager, Certified Sensus Value-Added Reseller Project Manager, Certified Sensus RF Engineer
- Educational Background
  - Bachelors of Science in Mathematics and Computer Science Technology / Minor in Geology; *Whittier College*

Key Role with the City: Mike Wood, with his extensive background in system integration, will be the overall Project Manager for the City of League City. Additionally, as Chief of Technology, Mike will be the City's main contact for all technology and system integration support.

Mike Cartwright — Operations Manager

- Employed with Aqua-Metric for over nine years
- Set up and implemented Texas Operational Office
- Over 15 years of Operations experience
- Licensed CPA
- Authorized representative to contractually bind proposals
- Educational Background
  - Bachelors of Business Administration in Accounting; *University of Texas at San Antonio*

Key Role with the City: Mike will serve as the City's main contact for all product and installation logistical requirements. Mike supervises the entire operations department, including warehousing and product delivery.

Chris Newville — Manager, Market Mediums

- Employed with Aqua-Metric for over seven years
- Manages inside sales and Marketing Department

- Oversees procurement and contracting

Key Role with the City: Chris will assist with media and marketing campaigns should the City require these services.

Kenny Wetzel — Director of Technology & PM

- Employed with Aqua-Metric for seven years
- Over 20 years of experience in technology
- Managed over 50 AMI/AMR implementations
- Certifications:
  - Certified Sensus Project Manager; Certified Sensus Value-Added Reseller Project Manager; Certified Sensus RF Engineer
- Educational Background
  - 27 hours in Forestry Science; *Northern Arizona University*
  - 60 hours in Business Administration; *Amarillo College*

Key Role with the City: Kenny Wetzel will be the City's initial influential IT system integrator. He will perform the City's primary site-surveys and gather all propagation study information. Additionally, Kenny will supervise all infrastructure and network installation, as well as provide all technology training to City personnel.

Craig Collins — Sensus, Account Development Manager – East Texas

- Over 16 years of experience implementing AMR/AMI Solutions
- Over 10 years of experience in water Utility Operations and Management
- Extensive knowledge of water, gas, and electric metering and meter installation projects
- Educational Background
  - Over 700 hours of water and wastewater related coursework administered by Texas A&M Extension Service
- Current and Previous Certifications
  - Grade B Water Production, Class B Wastewater Treatment, Backflow and Cross-Connection Control, Customer Service, Inspections Endorsement, Utility Construction Safety

Key Role with the City: Aqua-Metric's first point of contact with Sensus for water meter support.

David Overfield — Sensus, Mid-West Regional Manager of Technical Sales

- Over 20 years of experience in the Communications, RF, and Utility Industry
- United States Marine Corps Test Measurement and Diagnostics Equipment Division
- Educational Background
  - Bachelors of Arts in Management and Communications; *Concordia University, WI*

Key Role with the City: Coordinating the technical aspects of the solution and providing technical support and integration with Aqua-Metric.

Jim Grillo — Sensus, Mid-West Regional Manager

- Employed with Sensus for 24 years
- Held numerous positions including: District Sales Manager, National Distributor Manager, and Marketing Director
- Involved in hundreds of utility projects encompassing water metrology and AMR/AMI technologies over the past 20 years
- Educational Background
  - Bachelors of Business Administration in Marketing; *Western Michigan University*

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Michael Wood, PMP

Chief of Technology and Project Management

Qualifications & Education

Total Experience:	30 years
Project Management:	15 years
IT Experience:	30 years
Education:	B.S. in Math/Computer Science (Minor Geology) Whittier College, 1985
Certifications:	Project Management Professional (PMP): 2005 – present Certified Sensus Project Manager: 2010 – present Certified Sensus VAR Project Manager: 2012 – present Certified Sensus RF Engineer: 2014 - present

Project Management and Technology

Chief of Technology & PM – Thirkettle Corporation – Manages organization responsible for the project management, implementation, integration, training, and support of multiple cities and municipalities. Works closely on product technology with the companies represented.

Senior Manager – Accenture LLP – Created and built out a new practice within Oracle line of business focused on energy accounting. Project manager of Enterprise backup and technical consultant focused on IT initiatives.

Project Manager – P2Energy Solutions – Managed and implemented many energy projects using Oracle technologies and solutions. Provided consulting services to energy companies to improve business process, convert data, and integrate legacy systems.

Practice Manager – Oracle Corporation – Managed the sales demo and support infrastructure team. Technical Lead for teams to implement and integrate new Oracle software to replace legacy systems.

Senior Applications Professional – Unocal Corp – Technical roles focused on delivering IT value. Key member of project team to integrate many applications through a common database including ESRI products.

Senior Developer – Chevron Oil Field Research – Lead developer of an internal line of modeling programs designed to predict where to explore for oil and gas.

Project Management, managing and leading IT projects, IT strategy, Sensus FlexNet (water, gas, and electric), database administration, Unix administration, integration technologies, technical software development.

Specialties

Kenny R. Wetzel
6515 Roxton Dr.
Amarillo TX, 79109
Phone: (806) 353-0224
kenny.wetzel@emetric.biz

Objective

Sales career where accountability, integrity, and safety awareness can be utilized to improve customer satisfaction and the company's image.

Summary of Qualifications

- Graduate of Locomotive Engineer Training Program, National Academy of Railroad Sciences.
- Texas Licensed Irrigator Certificate #2310 in 1985
- Certified Sensus Handheld/AutoRead Instructor
- Excellent communication skills, ability to handle details rapidly and accurately in a team service environment along with shift work compatibility
- Strong character and high standards of behavior

Education

May 1994 To June 1996	**Amarillo College** Amarillo, TX 60 Hours Completed – Business Administration with focus in Mathematics
Aug 1978 To May 1979	**Northern Arizona University** Flagstaff, AZ 27 Hours Completed – Forestry Science

Work History

July 2009 To Present	**Director of Sales & Technology** Aqua-Metric/e Metric, Schertz, TX Manage the deployment of Sensus TouchRead, RadioRead, and FlexNet AMI systems. Coordinate with water and electric customers, utilities, and technology vendors to ensure successful implementation of TouchRead, RadioRead, and FlexNet Systems. Support market start-up and maintenance activities by researching market rules and utility tariffs. Managed relationships with customers, suppliers, regulators, and utilities as they pertain to assigned duties.
May 2000 To July 2009	**AMI/AMR Product Specialist/Sales** Western Industrial Supply, Amarillo TX Managed the deployment of Sensus TouchRead, RadioRead, and FlexNet AMI systems. Coordinated with customers, utilities, and technology vendors to ensure successful implementation of TouchRead, RadioRead, and FlexNet Systems. Supported market start-up and maintenance activities by researching market rules and utility tariffs. Managed relationships with customers, suppliers, regulators, and utilities as they pertain to assigned duties.
June 1985 To May 2000	**Owner/Operator** Rainmaker Sprinkler Co, Amarillo TX Received, shipped, and tracked products for qualitative initiatives to track cycle counts for inventory in and out of warehouse.

Designed, estimated, installed, and repaired sprinkler systems.
Supervised crews of two to three men for time management and safety.
Rain Bird Central Control Irrigation for Commercial/Golf Projects.

March 1978 To March 1994 — **Santa Fe Railroad**
Amarillo TX
All aspects of train operations

Memberships

Texas Irrigators Association
Texas Water Utilities Association

Software/Systems Skills

Experienced knowledge of Sensus Route Management Software, Microsoft Windows, Word, Excel, Power Point, and Internet navigation skills.

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JUSTIN HAMITLON

14058 CR 175 Iola, Texas 77861 (979) 220-4492 justin.hamilton@aqua-metric.com

A sales career where accountability and integrity is practiced daily in order to better serve our customers. I strive for our organization to be the leader in the implementation and utilization of technology whereby we transform utilities into more responsive, transparent, and efficient partners with the citizens they serve.

PROFESSIONAL EXPERIENCE

MANAGER OF STRATEGIC SALES

Aqua-Metric Sales Company, November 2015 to Present

- Manage the deployment and implementation of Sensus TouchRead, RadioRead, and FlexNet AMI systems
- Coordinate with water and electric customers, utilities, and technology vendors to ensure successful implementation of TouchRead, RadioRead, and FlexNet Systems
- Managed relationships with customers, suppliers, regulators, and utilities as they pertain to assigned duties

TERRITORY MANAGER

Sensus USA, September 2012 to November 2015

- Manage the deployment of Sensus TouchRead, RadioRead, and FlexNet AMI systems
- Coordinate with customers, utilities, and technology vendors to ensure successful implementation of TouchRead, RadioRead, and FlexNet Systems
- Managed relationships with customers, suppliers, regulators, and utilities as they pertain to assigned duties

AMR / AMI SPECIALIST

Johnson Supply Company, Palestine Texas, August 2009 to September 2012

- Manage the deployment of Master Meter Radio Read systems
- Provide troubleshooting and customer support for existing and potential customers
- Managed the relationships with customers, suppliers, regulators and utilities as they pertain to assigned duties

AMR / AMI SPECIALIST

Ferguson Waterworks, Georgetown Texas, August 2006 to August 2009

- Manage the deployment of Master Meter Radio Read systems
- Provide troubleshooting and customer support for existing and potential customers
- Managed the relationships with customers, suppliers, regulators and utilities as they pertain to assigned duties

EDUCATION

TEXAS A&M UNIVERSITY, COLLEGE STATION TEXAS

- Bachelors of Arts in Sociology

MEMBERSHIPS

- Texas Water Utilities Association

Aqua-Metric Project Implementation Plan

Aqua-Metric provides ongoing collaborative partnership and support to its clients throughout the lifecycle of their project. The Project Management team is responsible for managing installation, commissioning, and the City's acceptance of the system. Upon acceptance, the project team transitions support to Sensus and Aqua-Metric Technical Services. Aqua-Metric has developed a technology team dedicated to providing project management and technical support after the implementation of the project. With many years of technical project management experience, Mike Wood, Chief of Technology, leads the Aqua-Metric Technology Department.

The Aqua-Metric in-house technology department prides itself on being very knowledgeable in all aspects of AMI system setup, implementation, configuration, and support. We are not only familiar with the Sensus FlexNet System itself, but also its integration into third-party software. The Aqua-Metric team will work alongside Sensus personnel to perform a complete system setup and software implementation. Aqua-Metric has carried out and maintained over 70 AMI systems; additionally, Sensus has participated in over 600 FlexNet deployments.

Aqua-Metric is committed to supporting the City of League City in the implementation, maintenance, and operation of their AMI System. This includes providing all support to Aqua-Metric's direct involvement with the project.

Aqua-Metric Project Management Services

Aqua-Metric will provide project management services in accordance with the legal agreement between the parties, which may include coordination and support to the customer utility as outlined below:

- Pre-upgrade planning and customer review meetings
- Project schedule development
- Project coordination, facilitating equipment, order placement, and fulfillment
- Testing of the data transfer to the customer billing system
- Refresher training sessions for installers and AMI system operators
- Facilitate customer acceptance testing of the AMI system (phased acceptance) in accordance with the mutually developed plan

Aqua-Metric Project Management Criteria

All projects will be deployed as per the agreed upon criteria outlined with the City.

- The Project Management (PM) team will coordinate with the City according to the criteria identified and agreed upon for each milestone of the project.
- The PM team will manage commissioning, optimization, and acceptance of the project by phase.

Aqua-Metric Project Management Phased Activity

Aqua-Metric will work closely with the City to establish the installation project plan, project deliverables, accountabilities, communications planning, and project acceptance. We utilize our standard operational philosophy and approach through to Project Acceptance and Closure, combining the benefits of best practices and local management. Aqua-Metric's Technology Team will utilize the following milestones when upgrading the Utility's existing AMI System.

Aqua-Metric Responsibility Overview

Administer the Project

- Participate in pre-deployment planning
- Develop and maintain project schedule
- Conduct customer review meetings

- Coordinate subcontractors (if appropriate)

Manage site preparation and component installation

- Coordinate Sensus Regional Network Interface (RNI) SaaS setup and build
- Coordinate Sensus Analytics SaaS setup and build
- Coordinate Sensus Consumer Portal setup and build

Manage commissioning of the system

- Coordinate Sensus RNI commissioning
- Coordinate commissioning of the communication link between the basestation and RNI and then to the new SaaS RNI
- Coordinate Sensus Analytics commissioning
- Coordinate Sensus Consumer Portal commissioning
- Coordinate with City's Billing System and Sensus to link vFlex account synchronization file setup and delivery
    - Note: The City will need to contract with billing vendor to provide the billing part of the interface for vFlex integration and for the billing read process

Facilitate System Setup and Deployment

- Support configuration of RNI and Sensus Analytics user accounts and access
- Schedule and coordinate Sensus Analytics and RNI training
- Communicate with Billing and Sensus on testing data transfer between the Sensus-provided software and the customer billing system

Manage final system acceptance process

- Facilitate customer acceptance testing of the Sensus FlexNet system and Analytics
- Secure customer sign off system acceptance
- Train customer to support system after system acceptance
- Coordinate go-live cutover from Old Premise based RNI to new SaaS Sensus RNI and Analytics (MDM)

Facilitate final acceptance of the Consumer Portal

- Support configuration of RNI and Sensus Consumer Portal user accounts and access
- Schedule and coordinate Consumer Portal administrator training
- Assist with rollout plans to the citizens of League City to gain access to the Consumer Portal

Aqua-Metric Responsibilities by Phase

The following tasks are the responsibility of Aqua-Metric during each specific phase of an AMI Project sale and deployment.

Pre-Sale Phase

- Prepare AMI Base Terms document

Pre-Deployment Phase

- Gather project documents
- Gain understanding of project scope and deliverables
- Review software and equipment orders
- Create preliminary schedule
- Host project kick-off meeting

Network Infrastructure Deployment Phase

- Verify Basestation installation and version

- Facilitate SaaS RNI and Sensus Analytics servers and software
- Facilitate Sensus Consumer Portal servers and software
- Perform RNI and Sensus Analytics initial configuration
- Perform Sensus Consumer Portal initial configuration
- Work with customer IT organization to setup remote access (if not existing)

System Integration Phase

- Coordinate nightly data integration with Billing System or CIS system to provide vFlex file for data synchronization for Analytics and the Consumer Portal
- Coordinate billing integration with Billing System or CIS system to get AMI reads to use in billing process.

System Test Phase

- Test upgraded SaaS system to confirm functionality and accuracy

System Performance Acceptance Phase

- Evaluate system performance
- Perform or coordinate any system cleanup needed as a result of the upgrade
- Close out project

System Implementation

A successful implementation begins with conducting and City participation in an integration workshop hosted by Aqua-Metric for City participants. This workshop will include overviews on the system design, integration milestones, and data flow. During the workshop, the most appropriate integration methods are identified for each integration point.

The FlexNet AMI System supports a variety of methods for integrating with third-party applications, including:

- Flat file exports of CMEP and MVRS to feed MDM and CIS with registry reads, interval data, and alarm events.
- MultiSpeak web services for meter reading, customer billing, meter management, and meter lifecycle functions.
- CIM interfaces for on-demand reading, interval data delivery (auto-push), meter event delivery (auto-push), and remote connect/disconnect.

FlexNet Integration Solution Examples:				
NISC	Sienna, ABBB	DataVoice	MilSoft	Pyxis
Savage ODS	SEDC	PayGo	Jomar	iVue OMS
Sensus Analytics	SmartGrid CIS	ESB	ESInitials	Itron MDM
UISOL	IBM ESB	Allegate CIS	GE OMS	MeterSense MDMS
eMeter	Oracle	Siemens	Entergate	OATI

If any custom integration is needed outside the standard APIs, we can identify requirements during our workshop. Sensus is an active and influential voting member of the MultiSpeak organization. They continually introduce and propose improvements to MultiSpeak standards. Additionally, Sensus actively participates in CIM working sessions to provide feedback and advice.

Sensus Managed Services

Sensus Analytics operates in a secured, Software as a Service (SaaS), environment. SaaS provides all AMI head end system functionality through a secure cloud. Sensus performs all hardware maintenance as well

as software patches, and firmware updates enabling the City to simply focus on running the utility with high-quality data.

City of League City will simply need to maintain internet connection to access the SaaS environment. Aqua-Metric and Sensus will provide setup, configuration, and integration services to the Sensus SaaS environment. City of League City's participation will be required for user setup and permission grants.

Configuration changes, such as configuration change management control, including change promotion processes between environments, require a Aqua-Metric PM to engauge Sensus Professional Services' involvement in order to provide a quotation. We will be happy to discuss this process in further detail upon request.

Testing Method – Unit and System
Onsite validation testing is conducted to ensure data passes through the system as designed. Aqua-Metric PM and the designated Utility PM also validates functionality prior to acknowledging system acceptance.

Approach to process changes
Any desired changes to the system must first be vetted by a Aqua-Metric PM to engage Sensus Professional Services team in order to provide costing information and a timeline for possible changes to the system to come into effect.

Development of forms changes and design
Any desired changes to the system forms must first be vetted by a Sensus Professional Services team in order to provide costing information and a timeline for possible changes to the system to be in effect.

Development of reports
Any desired changes to the system default reports must first be vetted by a Aqua-Metric PM and would require engagement of the Sensus Professional Services team in order to provide costing information and a timeline for possible changes to the system to be in effect.

Process for system acceptance testing
Onsite validation testing is conducted to ensure data passes through the system as designed. Aqua-Metric PM and the designated Utility PM also validate functionality prior to acknowledging system acceptance.

Process for transition to full operations (cut-over)
Process for transitioning to Sensus FlexNet is a migration process and does not involve parallel processing.

Support provided through first major events (first month's full billing, first month collections, etc.) and process for backup and recovery.
Aqua-Metric PM and local Texas support staff will be available to assist with any issues which may arise. Sensus Technical Support also provides remote assistance as needed per Support Agreements. Disaster recovery environment is provided within the SaaS data center locations. Sensus eliminates your need to maintain a separate disaster recovery environment by using our geographically separated data center locations.

Sensus Analytics Software Deployment

As a software as a service (SaaS) offering, Sensus Analytics is accessed over the internet without any need for the City to own servers, deploy software, or buy any third-party licenses to software. The City's complete solution is configured in the secure Sensus Analytics multitenant infrastructure. Sensus and Aqua-Metric will provide a service level agreement of 99% uptime for the site, and there is minimal responsibility put on the City for deployments. To access the SaaS environment, City of League City will simply need to maintain internet connection.

Deployments are iterative and frequent. Firmware updates are planned and delivered every three months to all Sensus Analytics customers at once, since all subscribe to the same platform. Patches can be delivered as needed but are made available to all customers simultaneously. This solution architecture enables our team to focus on the solution as a whole to ensure quality instead of individual implementations. All personalized customizations are implemented as configurable optional features for subscribers of the platform so that no customer has a unique code base and requires specialized testing or deployment attention. Since it is delivered frequently, the code changes are kept small, and testing is able to focus on less per release in order to maintain the highest quality.

Testing is also iterative with the development of the features. Our dedicated testers work hand in hand with developers so that each fix is tested as soon as it is ready, rather than waiting for the end of the development cycle. This procedure enables our solution to be near test complete when the last line of code is written. This is a much more efficient use of resources and insures far higher quality than traditional test methodologies. It is these details that keep Sensus Analytics solutions high quality, flexible, and high value.

SA Hosted Environment

Sensus Analytics is built in virtual private networks in Amazon data centers. Amazon provides secure hosting for our applications and data, enabling fault tolerance and geographic diversity. Software application security is provided through SSL encryption of sessions. All users log in securely via passwords that are encrypted at rest. All password changes can be initiated by the users so that no passwords are sent among administrators or users. All data transfers are encrypted as SFTP to a site provisioned for the utility with its own user accounts and password unique to the utility. All passwords are encrypted at rest. Optional customer identifiable information including names, phone numbers, and emails may be encrypted at rest.

Aqua-Metric Training Overview

The success of a FlexNet system deployment is largely dependent on the knowledge and proficiency of the project team members. From the initial installation to project closure and beyond, the Aqua-Metric Technology team will work with the City to provide instructor-led and one-on-one field training needed for optimal system operation.

As a part of Aqua-Metric's initial project start-up, members of the technology team will perform on-site training for City of League City as detailed below. Product documentation and handouts will also be provided at this time. Additional services and training can be provided to the City as requested. We highly recommend that the City maintain their annual support to ensure proper use of our Technology Team and their services.

Over the system start-up period, between three and seven days of training are provided. Depending on project complexity and training requirements, Aqua-Metric will provide additional and/or refresher training as necessary.

Training Plan

Step One – 1/2 to 1 Day: Overview Sensus FlexNet and Analytics

Once the RNI and Analytics Servers are installed, configureand the system has at least two weeks of data for a the existing meter population, we will have overview training that provides a one-hour overview of the system with an additional two-hour session for billing personnel.

Overview (field and billing personnel – 1 hr.)

- Sensus FlexNet Architecture and Components
- Field Activation – confirmation of field activation process
- Sensus Launch Pad

- Device Manager Overview (Water)
- Sensus Diagnostics
- Analytics Overview

Details Analytics (focus on billing – additional 2 hrs.)

- Billing setup and integration
- Device Manager deeper dive – show information and troubleshoot
- Sensus Analytics Meter Insight – look at performance of the System
- Sensus Analytics Billing Overview – show integration to provide reads in seconds
- FlexNet and Analytics Alarms
- Sensus Analytics Report Access – getting data out to answer questions

Step Two – 2 Days: Expand on System Capabilities
Additional formal training is provided on the Sensus FlexNet system, including administration functions. These sessions provide a deeper dive into the system's capabilities. This training will occur two to three months into the project to expand the knowledge and capacities of utility personnel now that they are familiarized with the new verstion of Sensus FlexNet and the new interface using device manager.

Step Three – 1 Day: Consumer Portal Training
Provide training in management of the consumer portal and working with citizens that sign up for access.

Step Four – 1 to 2 Days: Additional Training Support
During the next few months of the project there will be on-site visits or web-based training for groups or individuals to answer questions and provide additional support and training as needed.

Step Five – 1/2 - 1 Day: Project Closeout Training
Project close-out training and transitioning of the project to the support team will occur once all meters have been installed.

System Optimization

- Evaluate system functionality
- Run acceptance test

System Acceptance Test

- Criteria development
- SaaS System hardware installed
- Functionality Testing

Testing and Validation

Project Completion and Sign Off

Once a project is deployed and completed, Aqua-Metric's Technology and Project Management Team will perform final validation and testing to confirm the system is fully operational.

- Technology: On an ongoing basis during the project, the Technology and Project Management Teams will work with the city to monitor FlexNet and Sensus Analytics through a series of reports identifying duplicate numbers or inconsistencies. A final review will be performed before the project transitions to support. The Technology and Project Management Teams will also go over any final training with any personnel to make sure city employees full understand the system and their responsibilities. We want to make sure the City is comfortable taking over the system and billing personnel understand the billing process. Once the City is comfortable with operating the System on its own, Aqua-Metric's Technology team will confirm the project's completion and create sign off documents.

Maintenance and Support Overview

Aqua-Metric is committed to supporting City of League City in the implementation, maintenance, and operation of its AMI System. This process includes providing all support to Aqua-Metric personnel directly involved with the Project. Additionally, we carry numerous product overviews and manuals that can be provided to the City if requested.

Sensus Support

The Aqua-Metric and Sensus support program was established to provide customers with a comprehensive support program that ensures that they will receive the best service, hardware, and software support – including firmware updates – for Sensus AMI products.

Participation in the support program is highly recommended for all FlexNet customers. This recommendation is made so that each FlexNet customer will receive the consistent product support benefits. Aqua-Metric, as Sensus' Value-Added Reseller, is responsible for helping Utilities successfully maintain the functionality of their systems through product support. Program features are as follows:

- Unlimited and priority handling of telephone service support from Aqua-Metric and Sensus' Technical Services Group
- Priority status for customers requiring hardware support and loaner equipment
- Firmware updates
- Additional training sessions
- Information pertaining to annual customer user conferences

Lifecycle Support: AMI Customer & Technical Services

A successful deployment of the Sensus FlexNet Advanced Metering Infrastructure (AMI) system is largely dependent on the knowledge, proficiency, experience, and local support for the City's AMI project. With the advent of so many technical systems, Aqua-Metric has developed and expanded its technology department to implement and service Sensus AMI systems. As a Sensus Certified Value-Added Reseller, Aqua-Metric will provide lifecycle on-site and remote support to the City. Upon acceptance, the project team transitions support to Aqua-Metric and Sensus' AMI Technical Services. From the initial installation to project closure and beyond, Aqua-Metric Technology Team will provide the lifecycle support needed for optimal system operation.

Support Inclusions

Aqua-Metric provides the added value of local in-house technical support services in addition to the support provided by Sensus USA. We will work with the City to manage the product through its lifecycle and beyond. Our on-site and remote support services include:

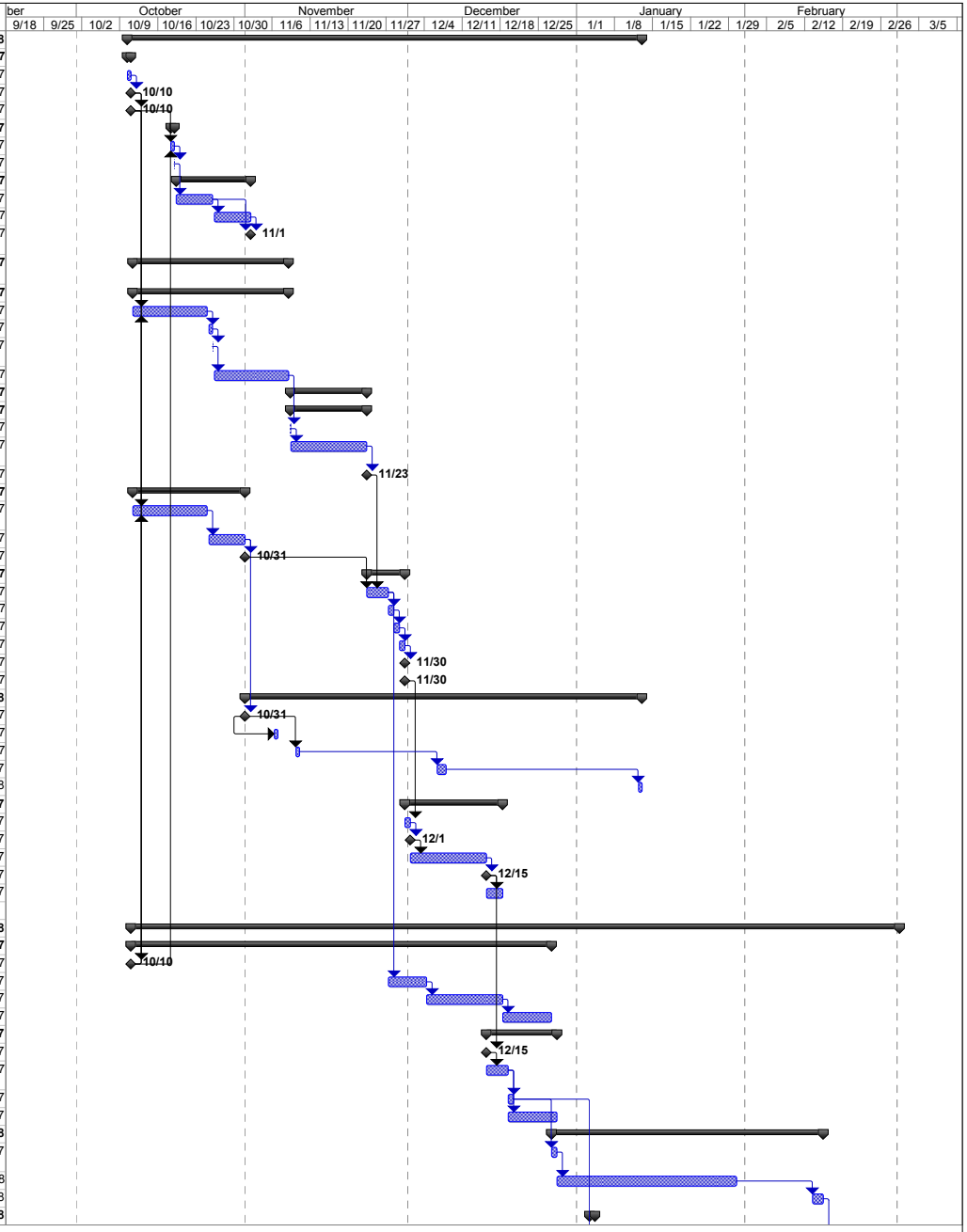
- Assistance with billing integration
- Sensus Server Backup consulting for AMI systems
- Access to Subject Matter experts on Sensus products and tools
- Remote and on-site support
- Hardware and Software troubleshooting assistance
- Technical support for Field Troubleshooting
- Training updates as tools, techniques, and software change
- Assistance with software updates and recommendations on the updates needed for your system and devices
- Basic monitoring (periodic health check)
- Annual Sensus Base Station check-up
- Coordination with Sensus to facilitate support as required

We have a dedicated Technology Team skilled with many years of experience in maintaining Sensus equipment and AMI systems. Aqua-Metric support for the City and Sensus product line includes Clint Arnold, National Sales Manager; Jeff Randolph, Aqua-Metric Sales Manager; Mike Wood, Chief of Technology; Michael Cartwright, Operations Manager; Kenny Wetzel, Technology Manager; Todd Madrid, Technology Manager; Dustin Hutchinson, Technology Manager.

Conclusion

Aqua-Metric will provide comprehensive customer service, product delivery, and support program to ensure we meet the City's objectives and exceed expectations. Aqua-Metric's integrated AMI solution, supported by full turn-key Project Management and IT integration, will enable the City to maximize the full AMI system benefits of the upgraded system in a shorter timeframe while also protecting the City's investment from any potential hidden costs.

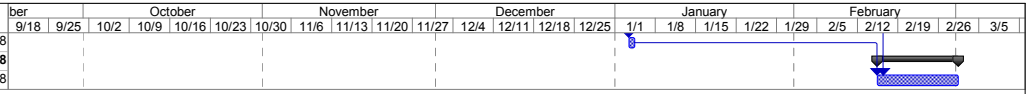
ID	Task Name	Duration	Start	Finish
1	**AMI Upgrade Phase I Project**	**63 days**	**Tue 10/10/17**	**Fri 1/12/18**
2	**Project Documents**	**1 day**	**Tue 10/10/17**	**Tue 10/10/17**
3	Contractual Agreement	1 day	Tue 10/10/17	Tue 10/10/17
4	Confirm Sensus Addendum Base Terms Document (Signed)	0 days	Tue 10/10/17	Tue 10/10/17
5	Purchase Order for Upgrade Migration and SaaS related Fees	0 days	Tue 10/10/17	Tue 10/10/17
6	**Kickoff Meeting**	**1 day**	**Wed 10/18/17**	**Wed 10/18/17**
7	Sign-off on Project Plan and SOW	0.5 days	Wed 10/18/17	Wed 10/18/17
8	Confirm/verify any requirements and expectations	0.5 days	Wed 10/18/17	Wed 10/18/17
9	**Infrastructure Preparation**	**10 days**	**Thu 10/19/17**	**Wed 11/1/17**
10	Setup City Network IP addresses (external) for the current 2.x RNI	5 days	Thu 10/19/17	Wed 10/25/17
11	Setup City Network IP addresses (external) for the current TGBs	5 days	Thu 10/26/17	Wed 11/1/17
12	Confirm Remote Access - access to all devices (Aqua Metric / Sensus)	0 days	Wed 11/1/17	Wed 11/1/17
13	**Installation of Infrastructure & SaaS FlexNet RNI and Sensus Analytics**	**21 days**	**Wed 10/11/17**	**Wed 11/8/17**
14	**RNI Installation (Hosted)**	**21 days**	**Wed 10/11/17**	**Wed 11/8/17**
15	Servers provisioned/installed at Sensus Data Center Site	10 days	Wed 10/11/17	Tue 10/24/17
16	RNI Commissioning (initial configuration)	0.5 days	Wed 10/25/17	Wed 10/25/17
17	Sensus Network Connectivity Test (remote access, Old RNI, 3xTGB)	0.5 days	Wed 10/25/17	Wed 10/25/17
18	Migrate data from RNI 2.x environment to SaaS (if required)	10 days	Thu 10/26/17	Wed 11/8/17
19	**Infrastructure Post Installation Tasks**	**10.13 days**	**Thu 11/9/17**	**Thu 11/23/17**
20	**Sensus Infrastructure Unit Test**	**10.13 days**	**Thu 11/9/17**	**Thu 11/23/17**
21	Confirm Infrastructure Test Scope	1 hr	Thu 11/9/17	Thu 11/9/17
22	Link up Old RNI and New SaaS RNI for data to flow from TGB to OldRNI to NewRNI until Cutover	10 days	Thu 11/9/17	Thu 11/23/17
23	SaaS Deployment (milestone)	0 days	Thu 11/23/17	Thu 11/23/17
24	**Billing Integration - Billing System(League City)**	**15 days**	**Wed 10/11/17**	**Tue 10/31/17**
25	Contract Sensus Billing Interface with Billing System for Automated vFlex File sent to SaaS RNI (Est)	10 days	Wed 10/11/17	Tue 10/24/17
26	Configure Sensus Analytics to work with Billing System	5 days	Wed 10/25/17	Tue 10/31/17
27	Delivery of Integration (Meter Sync and Billing Request/Response)	0 days	Tue 10/31/17	Tue 10/31/17
28	**Sensus Analytics Test**	**4 days**	**Thu 11/23/17**	**Thu 11/30/17**
29	Load CIS import file into Analytics	1 day	Thu 11/23/17	Mon 11/27/17
30	Verify import process	1 day	Mon 11/27/17	Tue 11/28/17
31	Generate a Readings File from Analytics	1 day	Tue 11/28/17	Wed 11/29/17
32	Run the import file into CIS system	1 day	Wed 11/29/17	Thu 11/30/17
33	Repeat if necessary until data verified	0 days	Thu 11/30/17	Thu 11/30/17
34	Verified - Production Environment	0 days	Thu 11/30/17	Thu 11/30/17
35	**Training**	**47 days**	**Tue 10/31/17**	**Fri 1/12/18**
36	Sensus Analytics Configured with Billing	0 days	Tue 10/31/17	Tue 10/31/17
37	Sensus Analytics and RNI Prerequisite Training	0.5 days	Mon 11/6/17	Mon 11/6/17
38	Validation Workshop look at data flow and resolution	1 day	Fri 11/10/17	Fri 11/10/17
39	Sensus Analytics Training	2 days	Wed 12/6/17	Thu 12/7/17
40	Sensus Analytics Follow-up Training	1 day	Fri 1/12/18	Fri 1/12/18
41	**AMI Phase Project Closeout**	**12 days**	**Thu 11/30/17**	**Mon 12/18/17**
42	Switch TGBs to Populate directly SaaS environment	1 day	Thu 11/30/17	Fri 12/1/17
43	Go-Live Switch to Using Hosted Environment	0 days	Fri 12/1/17	Fri 12/1/17
44	Final Billing System & Sensus Analytics Review	10 days	Fri 12/1/17	Fri 12/15/17
45	AMI Analytics Upgrade Complete (Milestone)	0 days	Fri 12/15/17	Fri 12/15/17
46	Documentation Archiving	1 day	Fri 12/15/17	Mon 12/18/17
47				
48	**Analytics Consumer Portal**	**95.13 days**	**Tue 10/10/17**	**Thu 3/1/18**
49	**Project Documents**	**52.13 days**	**Tue 10/10/17**	**Wed 12/27/17**
50	Purchase Order for SaaS Consumer Portal and related Fees	0 days	Tue 10/10/17	Tue 10/10/17
51	Agree on Approach for Rollout to Customers	5 days	Mon 11/27/17	Mon 12/4/17
52	Build Customer Communication Plan	10 days	Mon 12/4/17	Mon 12/18/17
53	Agree on Test Approach	5 days	Mon 12/18/17	Wed 12/27/17
54	**Configure and Setup Consumer Portal**	**7 days**	**Fri 12/15/17**	**Thu 12/28/17**
55	Sensus Consumer Portal Commissioning	0 days	Fri 12/15/17	Fri 12/15/17
56	Setup Parameters and Skin Like League City's other Customer Portals	2 days	Fri 12/15/17	Tue 12/19/17
57	Link to League City's Bill Pay Site and Home Site	1 day	Tue 12/19/17	Wed 12/20/17
58	Confirm all data is passing via vFlex file for Consumer Portal	5 days	Tue 12/19/17	Thu 12/28/17
59	**Testing**	**33 days**	**Wed 12/27/17**	**Thu 2/15/18**
60	Select City Accounts and City Employees that Live in League City to Test	1 day	Wed 12/27/17	Thu 12/28/17
61	Pilot Testing with City Accounts	4 wks	Thu 12/28/17	Tue 1/30/18
62	Pilot Rollout to Select Citizens	2 days	Tue 2/13/18	Thu 2/15/18
63	**Training**	**1 day**	**Wed 1/3/18**	**Thu 1/4/18**



Project: Untitled
Date: Wed 6/21/17

Task	Project Summary	Inactive Task	Duration-only	Finish-only			
Split	External Tasks	Inactive Milestone	Manual Summary Rollup	Progress			
Milestone	External Milestone	Inactive Summary	Manual Summary	Deadline			
Summary	Inactive Task	Manual Task	Start-only				

ID	Task Name	Duration	Start	Finish
64	Training for Billing and Public Works Personnel	1 day	Wed 1/3/18	Thu 1/4/18
65	**Production Rollout**	**10 days**	**Thu 2/15/18**	**Thu 3/1/18**
66	Execute Customer Communication Plan	10 days	Thu 2/15/18	Thu 3/1/18



Project: Untitled
Date: Wed 6/21/17

Task	Project Summary	Inactive Task	Duration-only	Finish-only
Split	External Tasks	Inactive Milestone	Manual Summary Rollup	Progress
Milestone	External Milestone	Inactive Summary	Manual Summary	Deadline
Summary	Inactive Task	Manual Task	Start-only	

FlexNet RNI Site to SaaS Migration and Upgrade With Sensus Analytics and Implementation of SaaS Consumer Portal

SAMPLE

Aqua Metric

1. Services Summary and General Responsibilities

City of League City, TX ("League City") is requesting a migration of the FlexNet Regional Network Interface ("RNI") environment to Sensus Software as a Service solution in Sensus' Data Centers. League City operates the RNI on their customer premise equipment ("CPE"). This statement of work describes the services that will be performed by Aqua-Metric, Sensus and League City in the migration of the RNI from League City's premise site ("Site") to the Sensus Data Center Software as a Service ("SaaS") environment.

Sensus will install, setup, and configure the RNI in the SaaS environment in Sensus' Data Centers. Sensus will perform certain configurations on the CPE to allow the transfer of data to occur from Site to SaaS. Sensus will build, validate and test the SaaS environment and functionality prior to production cut-over. Sensus will also setup and implement the Sensus Analytics ("SA") solution in a SaaS environment.

Aqua-Metric/Sensus will perform integration with the Sensus Analytics solution and will work with League City's billing system provider if changes are necessary to the current interface. Prior to the migration to the production system, Aqua-Metric/Sensus will provide end-user training on the latest version of the RNI, SA solutions and Portal. In addition to the migration of the RNI, this includes the upgrade of the FlexNet RNI to version 3.X.

Pricing provided on page 14 of this document reflect guaranteed pricing for the term of the Project as detailed herein. This includes up to 35,000 end services, and a minimum five-year term.

As part of the project, Sensus will install the Consumer Portal in the SaaS environment to allow the Residents and Commercial Customer in the City of League City to access to their water consumption information.

SAMPLE

1.1 General Responsibilities

Aqua-Metric and Sensus Responsibilities

- Aqua-Metric shall provide a Project Manager ("PM") to coordinate all aspects of the migration, upgrade, implementation, and integration process. The PM shall serve as the primary Sensus contact for the project, and will coordinate with the League City PM to communicate project timelines and other important information.
- Aqua-Metric/Sensus shall provide technical resources required to support the migration, configuration, and integration of the Sensus FlexNet RNI, SA solution, and League City billing system. Aqua-Metric and Sensus shall be responsible for proper configuration of the various Sensus systems, and shall also provide League City guidance on various application configurations when different options are available.
- Aqua-Metric shall provide integration services for the FlexNet RNI, SA solution and providing the data integration specifications for League City billing system to League City and the Billing System Vendor.
- Aqua-Metric and Sensus shall develop a project schedule and timeline to be provided to League City outlining the key project dates and milestones.
- Aqua-Metric/Sensus shall provide technical resources required to support the setup and configuration of the Sensus Analytics Consumer Portal ("Portal").
- Aqua-Metric shall coordinate with League City, League City's 3rd party backhaul vendors, as well as other IT departments and vendors as necessary to complete the project outlined herein.

League City Responsibilities

- League City shall appoint a Project Manager to act as a single point of contact for League City to coordinate with the Sensus Project Manager on the overall delivery of the solutions described herein.
- League City agrees to engage in Systems Acceptance Testing (SAT) of the FlexNet Regional Network Interface (RNI) in a timely manner after upgrade. League City agrees to provide formal acceptance of the Regional Network Interface (RNI) 3.x environment in writing within 30 days of successful completion of Systems Acceptance Testing (SAT).
- League City shall pay all approved invoices related to the project in a timely manner.

2. Description of Services

2.1 Aqua-Metric Project Management

Designate an Aqua-Metric Project Manager to act as the primary interface with League City for duration of the project. The Aqua-Metric PM will create an overall project plan and timeline to complete the appropriate tasks and activities. The Aqua-Metric PM and League City PM will work jointly to identify any risks associated to the success of the project and work to mitigate such risks. Project management activities are described below.

Aqua-Metric and Sensus Responsibilities

- Provide a single point of contact for project managing all related activities.
- Schedule/Coordinate project kick-off meeting (meeting may be delivered remotely).
  - Provide overall project governance and project kick off presentation.
- Create and review project plan and timeline.
- Review the program guidelines, deliverables, and expectations, and present project schedules and baseline project plan created.
- Communicate activity updates on regular interval agreed upon by League City and Sensus.
- Advise League City on issues related to challenges with project activities or risk mitigation strategies.
- Consult with League City on challenges and open trouble tickets requiring Sensus internal escalation.
- Develop the Systems Acceptance Testing (SAT) plan and agreement with League City.

League City Responsibilities

- Designate League City contact to coordinate activities with Sensus PM and technical resources.
- Schedule resources to attend meetings and assist Sensus when tasks require League City support.
- Provide list of personnel for email distribution of information.
- Establish a communication and activity plan.
- Work to define the terms of SAT and understand how League City will communicate the formal acceptance of the upgrade to Sensus.

2.2 RNI Transition Period and Parallel Data Delivery

During the RNI Transition Period League City will continue to operate the Site-based RNI 3.x system. Sensus will work with League City to export the RNI 3.x database and subsequently import the database into Sensus' SaaS environment. Data delivery and information will be transferred via

SAMPLE

"piperules" to ensure the latest information is transferred to the SaaS RNI 3.x system in preparation for production cut-over activities.

Aqua-Metric and Sensus Responsibilities

- Sensus shall install, setup, and configure a SaaS RNI on managed servers within the Sensus Data Center.
- The SaaS RNI will be provisioned to support the number of services correlated to the propagation study of record.
- Sensus shall perform database clean-up and maintenance in League City's RNI 3.x system:
  - Clean-up of stale meters,
  - Clean up database of non-existent or irrelevant data,
  - Perform database maintenance such as rebuilding indexes, updating indexes, consistency checks, run SQL query/agent jobs, etc.
- Aqua-Metric and Sensus shall work with League City personnel to make an image of the existing database resident on League City's RNI servers.
- Sensus shall restore the data image retrieved from League City's RNI onto the SaaS RNI servers configured for League City within the Sensus Data Center.
- Sensus shall remotely configure League City's RNI 3.x system using "piperules" to deliver new data from League City's RNI to the SaaS RNI during the transition period.
- Sensus shall configure the "piperules" on the SaaS managed servers in the Sensus Data Center to accept the new incremental data from CPE RNI during the transition period.

League City Responsibilities

- League City will provide Aqua-Metric and Sensus with remote access to League City systems and network.
- League City shall coordinate with Aqua-Metric and Sensus to facilitate the creation of the backup image from the Site-based RNI.
- League City shall coordinate with Aqua-Metric and Sensus to allow the configuration of "piperules" on the Site-based RNI to allow incremental data to be delivered to the hosted FlexNet RNI in the Sensus Data Center.
- League City shall provide network connectivity between League City's Site and the Sensus Data Center to provide data synchronization.
- League City will be responsible to provision firewall policies to facilitate the synchronization via "piperules" between League City's site and Sensus Data Center.

SAMPLE

2.3 Setup and Integration of SA Solution with RNI

The Sensus Analytics solution is a Software as a Service (SaaS) solution that provides League City with the ability to aggregate both metering data and customer billing data into a single platform to provide the reporting, dashboards, and analytics that will enable League City to become more operational efficient and effective in making business decisions on a day-to-day basis.

League City is purchasing the SA Water Enhanced with the following modules: Billing Access, Meter Insight, Device Access, Report Access, Alarm Dashboard and Alert Manager.

Aqua-Metric and Sensus Responsibilities

- Sensus shall setup, install, and configure the SA solution instance for League City.
- Configure the RNI to transmit the required data to the SA solution as follows:
  - CMEP (Reading Data, Alarms & Events)

    - Implement CMEP configuration settings/run time parameters
  - MultiSpeak 4.1 Meter Interactions
    - On Demand Reads Request
- Aqua-Metric and Sensus shall integrate the SaaS RNI 3.x environment with the SA solution per the requirements above, and ensure that data is successfully delivered from the RNI to the SA solution.
- Aqua-Metric and Sensus shall integrate the SA solution with the Portal.

League City Responsibilities

- The League City PM shall engage with the Aqua-Metric PM and shall coordinate with other departments and/or vendors to facilitate the setup and integration of the Sensus RNI and SA solution.

2.4 Configuration of SA solution with League City billing system

Aqua-Metric and Sensus will work to configure the SA solution with League City's billing system according to League City's system requirements.

Aqua-Metric and Sensus Responsibilities

- Aqua-Metric and Sensus shall configure the SA solution so that it can receive data from the League City billing system. This is to ensure that updates to meter information are received daily from the billing system into the SA solution. SA will not be performing file exports for billing. The exports would need to be configured by League City or their Billing System Vendor.
  - Delivery Frequency: Daily
  - Delivery Method: files will be posted to Sensus Secure FTP site by League City
  - Delivery Format: League City will send a file of comma separated values (CSV) format. Values may be in any order but static once an order is determined. A minimum set of fields is required to support the SA solution. The minimum set of fields required is as follows:
    - Account, MeterID, RadioID, Account_Billing_Cycle, Account_Route, Asset_Address, sdp_Lat, sdp_Lon, Cust_Name
  - Additional synchronization fields may be requested by League City for reporting, search, and other functionality of the SA solution. The entire list of fields is as follows. Not including field may limit functionality of the system:
    - meter_id, meter_id_2, radio_id, meter_manufacturer, meter_type, meter_lifecycle_state, sdp_id, sdp_state, sdp_lat, sdp_lon, sdp_grid_id, nearest_branch, asset_address, asset_city, asset_state, asset_zip, account_id, account_status, account_service_type, account_billing_cycle, account_rate_code, service_cycle, service_route, sdp_flow, sdp_zone, sdp_meter_size, sdp_usage_uom, sdp_meter_mult, number of dials, last known read, minimum usage threshold, maximum usage threshold, customer_name, customer_home_phone, customer_cell_phone, customer_email, non_billable
    - Note: Additional Fields may be added in support of new functionality in future releases of SA
  - Additional fields for the synchronazation may be desired by League City for the Portal application.

SAMPLE

League City Responsibilities

- The League City PM shall engage with the Aqua-Metric PM and shall coordinate with other departments and/or vendors to facilitate the configuration of the SA solution and League City billing system.
- Collaboration may include, but is not limited to, the creation and delivery of data synchronization files from the billing system.
- League City will be responsible for providing the communication path between SA solution and CIS/billing system for the purpose of the data exchange.
- League City will assist in defining required fields and work with billing vendor to get desired information in the Syncronization file(s).
- Any fees/costs for modification and testing of the billing interface for League City billing system charged by the billing vendor will be responsibility of League City.

2.5 Validation and Testing Services

Sensus will validate and test all functionality of the system prior to the cut-over production of the SaaS RNI 3.x environment. Validation and testing includes the connectivity to/from the base stations, integration to SA solution and League City billing system, and two-way communication.

Aqua-Metric and Sensus Responsibilities

- Aqua-Metric and Sensus will verify the base stations are at the appropriate hardware and firmware build for RNI 3.x, the RF cards are at the required revision and GPS is configured and functional.
- Aqua-Metric will notify League City if base stations require hardware upgrades to be performed.
- Aqua-Metric/Sensus will update/upgrade the firmware and/or hardware required for any base station required to function in order to facilitate the SaaS RNI 3.x upgrade.
- Aqua-Metric/Sensus shall configure the base stations and redirect communication from League City's Site-based RNI 2.x system to the SaaS RNI 3.x system.
  - Sensus shall validate and test meter data information and traffic is transferred from redirected base station to SaaS RNI 3.x system.
  - Aqua-Metric/Sensus shall issue certain two-way commands to League City specified test meters to ensure two-way communication is working and functional.
- Sensus shall test the RNI and SA solution integration and provide written notice to League City when the integration is complete.
  - Aqua-Metric/Sensus shall test the integration from RNI to SA solution to test for on-demand reads, alarms, etc., to verify system functionality.
- Aqua-Metric shall test the SA solution to League City billing system integration and provide written notice to League City when the integration is complete.
  - Aqua-Metric/Sensus shall perform a test of the integration between the SA solution and League City billing system to ensure League City receives meter data to issue billing reads.
  - Aqua-Metric/Sensus shall perform a test of the Portal spot check that data is showing up in the system as expected.

League City Responsibilities

- League City has performed all necessary base station hardware upgrades as required to perform the RNI 3.x upgrade.

SAMPLE

- League City will identify the appropriate base station and specify the select set of test meters to perform system validation and testing.
- League City shall test the interface between the Sensus systems and League City billing system within 30 days after written notice from Aqua-Metric/Sensus that the integration has been completed.
- League City shall test the Consumer Portal after the system is setup and configured.
- Integration testing shall include the verification of the data synchronization from the Sensus systems, as well as the verification of reading data delivered by the Sensus RNI system.
- League City shall provide written notice of acceptance of the integration upon successful completion of the integration testing.

2.6 Production Cut-Over to SA and Redirection of Base Station Connections

Aqua-Metric/Sensus will work with League City to determine production cut-over date and timeline working with Aqua-Metric PM and League City PM. After proper validation and testing has been performed on the SaaS RNI 3.x system, the cut-over activities will take place and Sensus will work with League City to reconfigure all base stations to communicate directly with the SaaS RNI 3.x system.

Aqua-Metric/Sensus Responsibilities

- After League City has provided written acceptance of the SaaS RNI solution and integration, Sensus will remotely reconfigure all FlexNet base stations in service within League City's service area to communicate directly with the SaaS RNI 3.x environment.
- Aqua-Metric/Sensus shall coordinate with the League City PM to facilitate backhaul testing and ensure that network traffic is being routed properly to the SaaS RNI 3.x environment.
- Following the reconfiguration of the base stations, Aqua-Metric/Sensus will work with appropriate League City personnel to configure Open VPN at each site.
- Aqua-Metric will update all system drawings and applicable documentation.

League City Responsibilities

- League City shall coordinate with Sensus to facilitate the reconfiguration of the base stations to communicate directly with the SaaS RNI 3.x environment.
- League City shall coordinate the current network backhaul providers at the base station sites, to redirect the backhaul of the data from the current RNI 2.x production environment to the SaaS RNI 3.x environment.
- League City is solely responsible for network backhaul connections at the base station sites, including any changes to the network backhaul equipment or settings, and any ongoing network backhaul charges from the base station sites.
- League City will need to, prior to the cutover from the non-hosted 2.2.4 RNI and SaaS 3x or 4x RNI, assist with setup of a network link so the two RNIs have the ability to run in parallel. This will allow for proper testing of the new system and to prepare the new system for cutover.
- This will require an open vpn connection between the non hosted and SaaS RNI.
- This connection will exist between the two network controllers over network ports 1194 and 9700.

SAMPLE

- It is important that the non-hosted RNI allows port 22, 1194 and 9700 access from the SaaS RNI environment.
- After cutover to the new SaaS structure, Aqua Metric and Sensus will require access to League City's three basestations through the City's existing firewall through additional ports - 9600 and 9800.

2.7 Production Cut-Over of Portal and rollout to League City Water Customers

Aqua-Metric/Sensus will work with League City to determine production cut-over date and timeline working with Aqua-Metric PM and League City PM for the Portal. After proper validation and testing has been performed on the SaaS Consumer Portal, the City will start Rolling out the application to the citizens.

Aqua-Metric/Sensus Responsibilities

- After Acceptance Aqua-Metric will assist League City on creation of a rollout plan of the SA Consumer Portal

League City Responsibilities

- League City shall execute the rollout plan after training and acceptance.

3. Assumptions

- RNI is only required to integrate with:
  - SA solution
  - League City billing system
- MultiSpeak 4.1 and CMEP will be used
- No Enterprise Service Bus (ESB) will be utilized for this project
- Single Sign-on is out of scope for this project

SAMPLE

4. Scope

This Statement of Work is limited to the current FlexNet infrastructure in place as of contract signing. The City currently has a total of three (3) base stations. Any additional expansion of infrastructure and/or base stations, as well as any additional request for further systems integration or ongoing management/maintenance of the system, will require a Change Request and pricing will reflect this change.

All infrastructure and base stations will be analyzed to determine if upgrades are necessary. If any additional hardware or work associated to additional hardware is required, League City will pay appropriate fees to purchase hardware and pay associated labor fees accordingly.

There are no hardware upgrades anticipated for the base stations to support migration to either Site to SaaS RNI or Site to Site with Logic.

All work is assumed to be performed remotely, unless otherwise specified within this Statement of Work.

Pricing does not include travel and expenses for on-site work to be performed. If travel and on-site work is required, expenses for these services will be invoiced at actual rates. Estimated airfare is $1,000.00 and daily per diem charges are $300, which includes hotel, meals, and rental car charges.

If any travel is required by League City, the actual travel and expenses plus additional consulting time (at $250/hr) will be billed to League City.

Travel expenses will only be incurred if Sensus personnel is required to be on-site. Aqua-Metric support and Aqua-Metric consulting expenses are covered under the Project Management cost documented in the quote (RNI with Analytics Upgrade).

Any costs or fees associated with the Billing System and the Billing System Vendor for software and/or services are the responsibility of League City.

Any costs or fees to integrate other systems are not included in the current scope.

5. Termination

Aqua-Metric/Sensus understands that City is a governmental entity, and should the Legislature fail to provide funding for any period during the term of this contract, City shall be excused for all liability for payment. City is required to give Aqua-Metric/Sensus written notice within thirty (30) days after learning that the funds will not be available. Upon receiving written notice from City, this contract will automatically terminate. In addition, the City shall be allowed to terminate this contract for any reason upon giving ninety (90) days written notice of its intent to terminate to Aqua-Metric/Sensus.

SAMPLE

6. Signature Page

The undersigned agrees to all the terms, conditions, and expectations listed in the above Statement of Work.

Client/Customer	**Contractor**
City of League City	**Thirkettle Corporation dba Aqua Metric Sales Company**
Company Name	Company Name
Authorized Signature	Authorized Signature
Authorized Contact (Type or Print)	Authorized Contact (Type or Print)
Title	Title
Date	Date
Attest	Attest
Date	Date

SAMPLE

A. Sensus Software as a Service (SaaS) Benefits

Where every dollar invested makes more cents.

Our Software as a Service (SaaS) offer provides all the benefits of a Sensus communications network by placing the RNI (Regional Network Interface) in your own private cloud-based solution. When you move to a SaaS model, we provide all of the hardware and software required to operate the RNI through our world-class data centers. There is no need for additional capital expenditures such as IT, additional office space and specialized resources. You can achieve the business outcomes you require, with the lowest total cost of ownership and complete peace-of-mind.

We monitor your servers and network connections around the clock to ensure high availability and reliability. Our data center team performs all hardware maintenance as well as software patches, updates, and upgrades to ensure you have access to the latest features. In addition to standard security testing procedures, we perform quarterly third party audits and security testing by certified Cyber-Security partners to ensure your information is safe. In addition, we eliminate your need to maintain a separate disaster recovery environment using our geographically separated data center locations.

Overview of Sensus Software as a Service

- Sensus owns RNI software and license
- Sensus manages, maintains and monitors software and server hardware
- Annual fee includes all hardware and software licenses
- FlexWare software maintenance is included
- Disaster recovery included

	Customer owns	Sensus owns
RNI License	⊗	✓
Connection to Data Center	✓	⊗
Hardware (servers, storage, etc.)	⊗	✓
Software (OS, 3rd party, RNI)	⊗	✓
Disaster recovery (HW, SW, etc.)	⊗	✓

SAMPLE

Benefits and Outcomes Delivered:

- Reduce
- IT and operational costs
- Risk associated with system configuration and maintenance
- Risk in planning for business continuity through disaster recovery
- Environmental impact (carbon footprint)
- Provide predictable costs for budgetary planning
- Increase availability and system performance through our dedicated network and servers
- Increase and strengthen security of your IT systems
- Accelerate time to market with new technologies
- Increase operational efficiency leveraging our Network Operations Center

Compare the Benefits

Own and Operate	
Customer Responsibilities	**Sensus Responsibilities**
NETWORK	
• Configure and manage equipment (non-RNI) • Configure and manage network addresses • Configure and manage Virtual Private Networks (VPNs) • Configure and manage standard time source (NTP or GPS) • Configure and manage security access points • Respond to relevant alarms and notifications	• Assist in configuring connection from base stations to licensed RNI server • Assist in configuring standard time source (NTP or GPS) • Respond to customer incidents when customer calls technical support
STORAGE AREA NETWORK (SAN)	
• Respond to alarms and notifications • Investigate issues using log files • Manage vendor if physical storage is off-site • Configure and verify regular backups are occurring successfully	• None

Software as a Service (SaaS)	
Customer Responsibilities	**Sensus Responsibilities**
NETWORK	
• Configure and manage equipment (non-RNI) • Configure and manage local area network and addresses	• Configure and manage equipment (non-RNI) in Data Center • Configure and manage network addresses in Data Center • Configure and manage Virtual Private Networks (VPNs) • Configure and manage standard time source (NTP or GPS) • Configure and manage security access points • Respond to relevant alarms and notifications
STORAGE AREA NETWORK (SAN)	
• None	• Respond to alarms and notifications • Investigate issues using log files • Manage vendor if physical storage is off-site • Configure and verify regular backups are occurring successfully

Own and Operate	
Customer Responsibilities	**Sensus Responsibilities**
DATABASE	
• Define data retention policy • Archive relevant data • Purge old, irrelevant, and excess data • Monitor space and capacity requirements • Respond to database alarms and notifications • Install database software upgrades and patches • Migrate data during installation and upgrades	• May perform or assist with installation of database patches, updates, and upgrades as a paid service • Perform standard technical support troubleshooting of RNI application and/or database when customer calls for assistance
RNI APPLICATION	
• Research significant problems with meter reads and system performance • Create and manage user accounts • Customize application configurations • Support application users • Investigate application operational issues • Respond to alarms and notifications • Install application upgrades and patches • Perform firmware upgrades over-the-air, or delegate and monitor field personnel for on-site upgrades	• May perform or assist with installation of application patches, updates, and upgrades as a paid service • Perform standard technical support troubleshooting of application when customer calls for assistance
OPERATING SYSTEM AND THIRD-PARTY SOFTWARE	
• Install operating system and other 3rd party software patches, updates, and upgrades • Perform system hardware maintenance, or delegate and monitor maintenance personnel with tasks such as monitor system performance, capacity, and availability	• May perform or assist with installation of system patches, updates, and upgrades as a paid service • Perform standard technical support troubleshooting of system when customer calls for assistance
SECURITY	
• Configure and manage security policies • Install security-related software and hardware upgrades and patches for operating system, database, and applications • Respond to alarms and notifications	• May perform or assist with installation of security patches, updates, and upgrades as a paid service • Perform standard technical support troubleshooting of RNI application and/or database when customer calls for assistance
BUSINESS CONTINUITY	
• Develop and implement a disaster recovery plan • Monitor system performance trends • Monitor for significant equipment and infrastructure faults • Identify problems and tasks required to perform required repairs; delegate to appropriate personnel • Replicate all systems (hardware and software) to a separate location (if available) • Perform complete system switch over to disaster recovery location (if available)	• May consult with customer to create a business continuity plan and/or procedures as a paid service • May assist with switch over of systems to disaster recovery location as a paid service • Perform standard technical support troubleshooting of system when customer calls for assistance during a disaster situation

Software as a Service (SaaS)	
Customer Responsibilities	**Sensus Responsibilities**
DATABASE	
• None	• Define data retention policy • Archive relevant data • Purge old, irrelevant, and excess data • Monitor space and capacity requirements • Respond to database alarms and notifications • Install database software upgrades and patches • Migrate data during installation and upgrades
RNI APPLICATION	
• Research significant problems with meter reads and system performance • Create and manage user accounts • Customize application configurations • Support application users • Investigate application operational issues • Respond to alarms and notifications • Perform firmware upgrades over-the-air, or delegate and monitor field personnel for on-site upgrades	• Install RNI application patches, updates, and upgrades when customer requests per Change Management process • Perform standard technical support troubleshooting of application when customer calls for assistance
OPERATING SYSTEM AND THIRD-PARTY SOFTWARE	
• None	• Install operating system and other 3rd party software patches, updates, and upgrades • Perform system hardware maintenance and monitor system performance, capacity, and availability • Perform standard technical support troubleshooting of system when customer calls for assistance
SECURITY	
• None	• Configure and manage security policies • Install security-related software and hardware upgrades and patches for operating system, database, and applications • Respond to alarms and notifications
BUSINESS CONTINUITY	
• Develop and implement a disaster recovery plan • Inform Sensus when to execute and switch over to the disaster recovery environment (execution fee will apply)	• Develop and implement a disaster recovery plan • Monitor system performance trends • Monitor for significant equipment and infrastructure faults • Identify problems and tasks required to perform required repairs; delegate to appropriate personnel • Replicate all systems (hardware and software) to a separate location • Perform complete system switch over to disaster recovery environment

B. Data Center Highlights

Physical Security:

- 24x7x365 on-site staffed technicians and security personnel with a dedicated guard room protected by ballistics rated glass
- Electronic badge card key and pin access
- Motion activated digital security cameras (interior and exterior)
- Biometric authentication readers on Data Center access doors through a mantrap entrance

Fire Detection & Suppression:

- Multiple zone dry-pipe pre-action fire suppression system
- Incipient early warning fire detection system
- Data Center safe fire extinguishers

Environmental Design:

- Zoned N +1 design – 900 tons of datacenter cooling
- Redundant 630 ton EVAPCO Cooling Towers
- Redundant 450 ton McQuay Chillers
- DataAire and Stulz CRAC units

SAS-70 Type II, SSAE 16 Type 1 Certified

SAM

Kristy Segarra - Manager, Bids & Proposals
6700 Guada Coma Drive • Schertz, TX 78154
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June 23, 2017

Quote for	City of League City, Texas
Attention	Purchasing Department
Address	300 West Walker Street
City, State, ZIP	League City, Texas 77573
Phone	(281) 554-1000

Sensus Analytics MDM System			
Quantity	Description	Unit Price	Extended
	Year One System and Setup Costs		
1	RNI Setup Fee	$3,750.00	$3,750.00
1	RNI Core Education	$5,000.00	$5,000.00
1	Sensus Analytics Setup Fee	$3,750.00	$3,750.00
1	Sensus Analytics Basic Integration to CIS[8]	$2,000.00	$2,000.00
1	Sensus Analytics Onsite Training	$2,500.00	$2,500.00
1	Project Management	$12,500.00	$0.00
1	Annual RNI Software-as-a-Service (SaaS) Fee	$14,705.88	$14,705.88
1	Annual Sensus Analytics Enhanced SaaS Fee	$11,764.71	$11,764.71
	Annual Sensus Analytics Alert Manager Text Message Block of 6,000 Messages (Optional)	$750.00	
		Total:	$43,470.59
	Year Two Recurring Cost[5,8]		
1	Annual RNI SaaS Fee - Year Two	$18,823.53	$18,823.53
1	Annual Sensus Analytics Enhanced SaaS Fee - Year Two	$13,529.41	$13,529.41
	Annual Sensus Analytics Alert Manager Text Message Block of 6,000 Messages (Optional)	$825.00	
		Total:	$32,352.94
	Year Three Recurring Costs[5,8]		
1	Annual RNI SaaS Fee - Year Three	$22,941.18	$22,941.18
1	Annual Sensus Analytics Enhanced SaaS Fee - Year Three	$15,294.12	$15,294.12
	Annual Sensus Analytics Alert Manager Text Message Block of 6,000 Messages (Optional)	$907.50	
		Total:	$38,235.30
	Year Four Recurring Costs[5]		
1	Annual RNI SaaS Fee - Year Four	$27,058.82	$27,058.82
1	Annual Sensus Analytics Enhanced SaaS Fee - Year Four	$17,058.82	$17,058.82
	Annual Sensus Analytics Alert Manager Text Message Block of 6,000 Messages (Optional)	$997.50	
		Total:	$44,117.64
	Year Five Recurring Costs[5]		
1	Annual RNI SaaS Fee - Year Five	$31,176.47	$31,176.47
1	Annual Sensus Analytics Enhanced SaaS Fee - Year Five	$18,823.53	$18,823.53
	Annual Sensus Analytics Alert Manager Text Message Block of 6,000 Messages (Optional)	$1,097.50	
		Total:	$50,000.00

This quotation on the product and services named, may be subject to the conditions noted below:

1. Net 30 Days to Pay
2. Freight Allow on orders over $7,500.00
3. All quotes are valid for 160 days from date of quotation
4. Return product may be subject to 25% restocking fee
5. Pricing guaranteed for term of Project - date ranges as shown
5. Minimum 5 Year Term; 5% Increase on All Annual Services Years 6-10 (from Year 5 Costs)
6. Pricing based on up to 35,000 services
7. City's billing system may require system integration fees on their end. Aqua Metric is unable to determine those costs at this time
8. During year two or three, League City will up updating their billing software to Munis. Additional integration fees will apply from Sensus and Munis. We are unable to determine costs at this time.

Five Year Subtotal:	$208,176.47
One Year Performance and Payment Bond:	$4,122.65
Five Year Performance and Payment Bond:	$6,101.52

Aqua Metric

Kristy Segarra - Manager, Bids & Proposals
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June 23, 2017

Quote for	City of League City, Texas
Attention	Purchasing Department
Address	300 West Walker Street
City, State, ZIP	League City, Texas 77573
Phone	(281) 554-1000

Customer Portal

Quantity	Description	Unit Price	Extended
	Consumer Portal Add-On		
1	Consumer Portal Core - Annual Cost for Minimum User 1,500[5]	$5,000.00	$5,000.00
	Consumer Portal Core - Annual Cost for Minimum Over 1,500[5], Price per User	$1.20	
1	Consumer Portal System Setup	$0.00	$0.00
1	Consumer Portal CIS Integration Fee[6]	$0.00	$0.00
1	Consumer Portal On-Site Training	$0.00	$0.00
1	Consumer Portal Annual Text Message Block of 6,000 Messages (Optional)[5]	$0.00	$0.00
		Total:	**$5,000.00**
	Consumer Portal Recurring Costs - Year 2		
1	Consumer Portal Core - Annual Cost for Minimum User 1,500[5]	$0.00	$0.00
	Consumer Portal Core - Annual Cost for Minimum Over 1,500[5], Price per User	$1.20	
1	Consumer Portal Annual Text Message Block of 6,000 Messages (Optional)[5]	$0.00	$0.00
		Total:	**$0.00**
	Consumer Portal Recurring Costs - Year 3		
1	Consumer Portal Core - Annual Cost for Minimum User 1,500[5]	$6,631.25	$6,631.25
	Consumer Portal Core - Annual Cost for Minimum Over 1,500[5], Price per User	$3.00	
1	Consumer Portal Annual Text Message Block of 6,000 Messages (Optional)[5]	$796.25	$796.25
		Total:	**$7,427.50**
	Consumer Portal Recurring Costs - Year 4		
1	Consumer Portal Core - Annual Cost for Minimum User 1,500[5]	$6,830.00	$6,830.00
	Consumer Portal Core - Annual Cost for Minimum Over 1,500[5], Price per User	$3.09	
1	Consumer Portal Annual Text Message Block of 6,000 Messages (Optional)[5]	$820.00	$820.00
		Total:	**$7,650.00**
	Consumer Portal Recurring Costs - Year 5		
1	Consumer Portal Core - Annual Cost for Minimum User 1,500[5]	$7,035.00	$7,035.00
	Consumer Portal Core - Annual Cost for Minimum Over 1,500[5], Price per User	$3.18	
1	Consumer Portal Annual Text Message Block of 6,000 Messages (Optional)[5]	$843.75	$843.75
		Total:	**$7,878.75**

This quotation on the product and services named, may be subject to the conditions noted below:

1. Net 30 Days to Pay
2. Freight Allow on orders over $5,000.00
3. All quotes are valid for 90 days from date of quotation
4. Return product may be subject to 25% restocking fee
5. Special Pricing Years 1-2; 3% Annual Increase years 3-5
6. Basic Integration for Sensus side only. Billing provider may have additional costs associated with integration
7. Pricing based on up to 35,000 services
8. Consumer Portal Annual User price will be calculated and invoiced at the end of the year, once an understanding of overage users has been calculated

Five Year Subtotal:	**$27,956.25**
One Year Performance and Payment Bond:	**$698.91**
Five Year Performance and Payment Bond:	**$1,034.38**

Kristy Segarra - Manager, Bids & Proposals
6700 Guada Coma Drive • Schertz, TX 78154
Phone: (210) 967-6300 • Fax: (210) 967-6305
Email: kristy.segarra@aqua-metric.com

June 23, 2017

Quote for City of League City, Texas
Attention Purchasing Department
Address 300 West Walker Street
City, State, ZIP League City, Texas 77573
Phone (281) 554-1000

Aqua-Metric Annual Maintenance and Support			
Quantity	**Description**	**Unit Price**	**Extended**
1	Aqua-Metric Annual Maintennace and Support, 2017-2018 Includes Basestation Maintenance Program for Three S50 Basestations	$12,000.00	$12,000.00
		Total:	**$12,000.00**
1	***Year Two Costs*** Aqua-Metric Annual Maintennace and Support, 2018-2019 Includes Basestation Maintenance Program for Three S50 Basestations	$12,000.00	$12,000.00
		Total:	**$12,000.00**
1	***Year Three Costs*** Aqua-Metric Annual Maintennace and Support, 2019-2020 Includes Basestation Maintenance Program for Three S50 Basestations	$12,000.00	$12,000.00
		Total:	**$12,000.00**
1	***Year Four Costs*** Aqua-Metric Annual Maintennace and Support, 2020-2021 Includes Basestation Maintenance Program for Three S50 Basestations	$12,000.00	$12,000.00
		Total:	**$12,000.00**
1	***Year Five Costs*** Aqua-Metric Annual Maintennace and Support, 2021-2022 Includes Basestation Maintenance Program for Three S50 Basestations	$12,000.00	$12,000.00
		Total:	**$12,000.00**

This quotation on the product and services named, may be subject to the conditions noted below:

1. Net 30 Days to Pay
2. Freight Allow on orders over $5,000.00
3. All quotes are valid for 90 days from date of quotation
4. Return product may be subject to 25% restocking fee
5. Minimum 5 Year Term; 5% Increase on All Annual Services Years 6-10 (from Year 5 Costs)
6. Basic Integration for Sensus side only. Billing provider may have additional costs associated with integration
7. Pricing based on 33,200 Services

Five Year Subtotal:	**$60,000.00**
One Year Performance and Payment Bond:	**$1,500.00**
Five Year Performance and Payment Bond:	**$2,220.00**

Additional Information

Billing Integration – Aqua-Metric is able to integrate with, and has successfully worked with, numerous billing systems (e.g. HTE SunGard, Incode, enQuesta, SWT, etc.). When integrating Sensus Analytics with billing systems, sometimes the billing company has integration fees. Should the billing company require integration fees, it would be the responsibility of the City to pay these fees directly. Additionally, billing software companies may also have fees for automated uploads of meter swaps. This fee will be handled directly by the City as well. It is our understanding that the City of League City will be transitioning their current billing software to Tyler MUNIS in 2018. When this changeover takes place, MUNIS and Sensus may have fees associated with the integration into the new technologies. All fees required for these transitions will be passed along to the City as well. Although Aqua-Metric may not be responsible for these or any additional billing integration fees, we are more than happy to assist with the integration to confirm a smooth and successful project.

MDMS System Warranty – As long as the City of League City remains current with their AMI System support and pays their appropriate annual fees, Aqua-Metric's in-house technology team will provide technical assistance for the lifetime of the system. The City will also receive firmware updates, patches, and repairs as released. Usually these services are performed in the late hours of the evening or early morning as to not interrupt or interfere with city personnel and services. Product Information Notices (PINs) will be released each time a patch or updates is performed. The City of League City can sign up to receive these PINs at any time; however, Sensus and Aqua-Metric will perform these services as part of our service to the City. Pricing for Aqua-Metric Annual Maintenance and Support, which also includes basestation support, has been provided within our response. Pricing has been submitted on a separate page as Aqua-Metric was not sure if the City of League City preferred to incorporate annual services which encompass AMI within the MDMS and Customer Portal pricing.

Customer Portal Additional Users – Sensus Consumer Portal offers a base fee for the first 1,500 users. Each user beyond 1,500 will have an individual fee. For the first two years of Consumer Portal, Aqua-Metric is offering a discounted rate for each additional user as an incentive for League City's customers to sign up as early as possible. At the end of each year, Aqua-Metric will invoice the City for actual users signed-up for Portal, rather than estimating costs up front. Since we do not know how many League City residents will sign up for Portal, our response herein only includes extended pricing for the first 1,500 users, with price per each additional user shown but not extended into the total.

Training and Travel – As long as the City of League City maintains their annual subscriptions and support fees, Aqua-Metric will provide support for the lifetime of the City's system. This includes time and travel for our in-house technology team.

Insurance Requirements – Pages 15, 16, and 21 of League City's RFP describe the City's insurance requirements. Aqua-Metric is able to meet all insurance requirements and provide a certificate verifying so upon acceptance of our proposal, if such granted. To confirm, Aqua-Metric is not providing building services, so Builder's Risk will not be provided under our policy. If the City of League City requires this insurance adder, all costs incurred will be passed along to the City.

Bonding – Page 21 of League City's RFP states a Performance and Payment Bond must be furnished by the approved vendor. Aqua-Metric is able to provide bonding and has provided two pricing options within our price proposal pages. Option one is for a one year P&P Bond and option two is for five years of bonding. The costs for bonding are based on each sections five year total. Please note, changes in total contract amount will affect bonding price. We would like to discuss bonding with the City to get a better understanding of their requirements and timeframe to quote more appropriately.

Any items beyond what is quoted within our response is subject to price negotiations.

Aqua Metric Sales Company 6700 Guada Coma Dr., Schertz, TX 78154 • Phone: (210) 967-6300 Fax: (210) 967-6305

AQUA METRIC SALES COMPANY & SENSUS USA
SUPPORT OPT-OUT AGREEMENT

_____ (the "Utility") has received and reviewed the Annual Software and Systems Maintenance and Support provided by Aqua Metric Sales Company and Sensus USA. Beginning _____ , 20___, date this agreement is made effective, the Utility elects to discontinue all current and future Annual Software and Systems Maintenance and Support. The Utility further acknowledges and agrees Sensus USA and Aqua Metric Sales Company will not be held responsible to diagnose, repair, or replace any software or equipment previously purchased by the Utility unless the Utility agrees to purchase future service and/or support as required; at which time the services and/or support will be invoiced at the rates listed herein.

Aqua Metric Sales Company Software Support

- $200.00 Hourly – One (1) Hour Minimum Remote Support
- $200.00 Hourly – Four (4) Hour Minimum On-Site Support
- $1,500.00 Daily Support
- Parts, Materials, and Software Updates Not Included

Sensus USA Software Support

- $250.00 Hourly/Per Call
- Parts, Materials, and Software Updates Not Included

The Utility, at its sole discretion, may elect to enlist an Annual Software and Systems Maintenance and Support; at which time the Utility acknowledges any agrees to any additional cost(s) incurred to reinstate the new Support program.

SAMPLE

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the Effective Date.

Aqua Metric Sales Company

By: _____
Printed Name: _____
Title: _____
Date: _____
Aqua Metric Sales Company
Address: _____
_____
Phone: _____
Facsimile: _____
Email: _____

Utility

By: _____
Printed Name: _____
Title: _____
Date: _____
Company Name:
Notice Address: _____
_____
Phone Number: _____
Facsimile: _____
Email: _____

Sensus Analytics MDM Overview

As Advanced Metering Infrastructures grow and produce increasing amounts of data, utilities have a growing need to efficiently turn their data into useful information. With minute-by-minute, system-wide operational views, Sensus Analytics software is the cloud-based (Software-as-a-Service) answer for any utility seeking to maximize the value of the data collected from various intelligent devices on their distribution system.

Sensus Analytics organizes data acquired across water, gas, and electric network communications platforms to drive revenue, improve customer service, and promote better planning. Upon data collection, the system's flexible user interface presents information in detailed reports for a utility's use. Sensus Analytics enhances the capabilities of Sensus' intelligent meters and FlexNet communications network so that utilities can maximize the return on infrastructure investments over time.

Sensus Water Analytics

Sensus Analytics is the overall solution name; however, the software design is broken down into customizable packets. Sensus Analytics Essentials provides the core business functionality needed to streamline a Utility's customer service and operations. Enhance features are an advancement on the core solution that provides end users access to individual meter reads, account information alarms, and billing information. Enhance modules include the following:

- **Data Storage:** A secure cloud-based information warehouse that stores system and network data applications. Sensus Analytics automatically includes three years' worth of data storage.
- **Billing Access:** A billing interface tool that previews and audits billing extracts for issues, enabling the City to take corrective action to generate final billing for production.
- **Billing Adapter:** Interface to the City's CIS / Billing system allowing for the importation and exportation of billing information.
- **Report Access:** Various management tools, offering a menu of reports that instantly summarize information based on priority.
- **Meter Insight:** A validation tool that provides a summary of incoming network meter data and identifies issues that should be addressed.
- **Device Access:** A customer service tool that presents detailed usage history and trends, identifies anomalies, and enables customer alert programming to track specific issues.
- **Alarm Console:** Response tool that enables faster issue resolution through real-time presentation of alarms and critical data.
- **Alarm Dashboard:** Evaluation tool that presents a historical view of alarm data for review, prompting analysis and response planning.
- **Alert Manager:** Communication tool that issues priority messaging for critical issue response.

Features and Benefits

- **Application based:** Each purpose-built application accesses data from multiple systems and presents it in a user-friendly dashboard.
- **Flexible:** Select a package of tools for billing and system management or single applications that help achieve key initiatives.

- **Accessible:** Our secure, cloud-based delivery platform puts your information within reach no matter where you are.
- **Affordable:** There's no need to purchase, install, update, or maintain special software, licenses, or hardware – or to set aside valuable office space to house it.
- **Fresh:** Applications are continuously updated as information enters the system so that you can make decisions based on the latest data.
- **Integratable:** Sensus Analytics draws information from many systems through the cloud, so there's little time and cost required for standard systems integration.
- Scalable: Our data store and three years' worth of cloud-based storage enables you to add applications or increase storage quickly.
- **Visible:** Role-based access allows information sharing across the organization – from customer service and operations to accounting and rates – for improved efficiency and cross-functional understanding.
- **Ease of installation:** Flexible file transfer allows for simple and easy interface to billing solutions in most cases, without the need to involve the billing companies, allowing the utilities to interface quickly and economically.

Sensus Analytics User Interface

Sensus designs interfaces to be intuitive, provide easy-to-navigate data in order to improve customer service response time. Interfaces are designed to empower users to effectively address consumption and billing issues. In our past experiences, we have dealt with multiple meter reading interfaces from the same as well as multiple vendors at the same site. Sensus Analytics core software platform is ideal for all water, gas, and electric utilities as it incorporates all the feature sets required to efficiently collect, store and manage data. With its vast customization options, Sensus Analytics helps solve nearly any data-related utility issues. Sensus Analytics is designed to meet key functional applications, such as billing, and also incorporates a sophisticated platform to address the more complex needs of a utility.

Fundamentals

Sensus Analytics collects, manages, and organizes the increasingly large amount of data utilities receive from their AMI system into a single platform. By facilitating validation, estimation, and editing based on the incoming data, Sensus Analytics helps utilities run more efficiently and better serve customers.

Intelligence

- Multiple applications within the system allow the end user to adjust criteria to single meters or groups of meters in order to apply the correct parameters. This results in the elimination of "one size fits all" and exceptions are quickly and efficiently identified
- Over time, as a utility works adjusts the parameters to meet specific needs, it will develop processes that are automated, which saves time and increases efficiency.

Automation

- The software has a user-friendly interface with dashboards that provide an instant snapshot of a utility's system.
- Sensus Analytics includes a scheduler to allow a utility to create specific reports, organize them according to individual needs, and then push the reports to end users via email or text.
- Features such as automated editing and extrapolation eliminate manual intervention and quickly address exceptions.

Flexibility

- Sensus Analytics is designed to address varying skill sets and needs within a utility. Customized menus can incorporate many reports or address those specific to the end user.
- Report parameters can be set system-wide or targeted to specific meters or groups.

- Additional modules and service options allow the utility to expand capabilities over time.

Functionality and Customization

Sensus Analytics seamlessly integrates with Sensus FlexNet AMI communications network and features add-on modules that meet the unique needs of each utility. With Sensus Analytics' modular platform, utilities can expand core features and address advanced feature requirements with additional components such as the consumer portal, rules editor, advanced reporting and a CIS and GIS overlay function.

Advanced Reporting

- Offers advanced users the ability to perform deeper analysis of information that is not available in existing reports. Advanced Reports is a Customer Reporting Module based on IBM Cognos business report. Users will have the ability to create advanced reports using the data stored in Sensus Analytics to further enhance and improve operational efficiencies.

Rules Editor

- The Rules Engine is a highly configurable and flexible tool that allows utilities to automate business processes and integrate AMI with other utility systems. The Rules Engine provides the opportunity to extend the value of other enterprise systems by tying together multiple systems, exchanging data, and automating workflows.

Consumer Portal

- Consumer Portal customer facing tool provides the answer to the utilities question, "How do we engage our customers?" The Consumer Portal is a sophisticated solution intended to engage customers. The portal can be deployed as a standalone solution or as an additional module to Sensus Analytics. Consumer Portal allows the end consumer to view information such as consumption data down to hourly increments, access utility-based consumer related information, and compare data of previous periods.
- In addition, Consumer Portal allows utility customers to set text or email requests for high usage alerts or other pre-selected notifications

Advanced Systems Integration

- **GIS Database Integration:** Sensus Analytics provides information on endpoints and towers. This integration allows utilities to overlay GIS coordinates into Sensus Analytics, which provides consistency within business processes. GIS integration provides the ability to exchange and store information between the two systems. This integration will provide the ability for the end user to view data such as meters, communications status, outage status, and other details in the utility GIS system.
- **CIS System Integration**: Sensus Analytics has the capability to integrate very efficiently with most CIS systems. CIS integration provides some or all of the following functions based on business needs: account and meter synchronization, billing import/export automation, service order views, profile views, on demand reads, and remote connect/disconnect.
- **SCADA System Interface:** Integration with SCADA can help improve planning and analysis around distribution planning and outage management in addition to other activities. Applications that are part of this integration provide benefits, such as the monitoring of grid conditions, analysis of peak loads, and the ability to import metered water distribution data.
- **Weather Interface:** The optional weather data interface provides the ability to overlay weather data onto usage reports. This functionality is available for both customer service representatives and to customers in the online web presentment views. Weather Data interface provides the ability to incorporate temperature, humidity, wind speeds, wind direction, weather conditions, and precipitation.
- **Outage Supervision:** Outage Supervision goes beyond the basic recording and reporting on outage notifications and enables automated workflows that take actions to initiate outage responses. Outage

Supervision provides some of the following capabilities: plotting outages on maps, recording and reporting outage and restoration events, and calculating and tracking outage statistics (SAIDI, SAIFI, CAIDI, CAIFI).

- **Distribution Automation:** This integration platform offers distribution analysis capabilities that provide powerful insight into the way the distribution network is operating. The feature sets include analysis of transformer loading, loading patterns, and peak contributor analysis. This application allows the utility to analyze actual loads instead of calculated or assumed loads, informing decisions on transformer sizing or resizing.

Providing Access to Data through Consumer Portal

Utilities can use the Consumer Portal to post information on usage as well as drought conditions, water restrictions, watering schedules, conservation tips, and leak repair. Sensus Analytics Consumer Portal provides solutions to benefit both the utility and the consumer.

- The Consumer Portal can drastically reduce the number of calls to a utility's call center and improve the customer experience for calls that are made.
- Flexible settings allow utility customers to set text or email requests for high usage alerts or other pre-selected notifications.
- Greater access to usage reports allows for faster response to customer inquiries.
- Consumption details can be reviewed in hourly consumption intervals. This provides granular detail of when water or energy was used.
- Access to this granular data allows customer service representatives to quickly address unusual consumption patterns or high bill complaints.
- Multiple data views allow customer service representatives to confidently communicate specific details of a customer inquiry, resulting in faster resolution, minimized manual field intervention, and improved customer satisfaction.
- Improvements in system-wide operational efficiency and reduction in unaccounted for water and leaks support conservation initiatives.

Conservation

Sensus Analytics reconciles unaccounted for water loss, enables customer segmentation to enforce mandated watering days, and encourages end-users to self-initiate conservation programs through Consumer Portal applications. Sensus Analytics also supports the water conservation capabilities of AquaSense by organizing and validating data and quickly detecting leaks.

Sensus Analytics also enables water utilities to implement tiered rates for end users. These rates reward end users with the lowest rate, provided they stay within a certain amount of usage per person, per household. Redwood City, California, for example, implemented tiered rates and saved more than 80 million gallons of water in one year alone.

For utilities looking to determine specific culprits for water use or loss, virtualization in Sensus Analytics enables aggregation of water usage data for several commercial properties such as fast food restaurant locations or real estate holdings. Utilities can also segment customers based regions or districts and can quickly react to all meters and end users affected by an issue.

Ready for the future

Sensus Analytics applications are developed and delivered through our secure, cloud-based platform. They collect and combine data from several sources, including smart meters, SCADA systems, customer billing software, news services, and more. Applications are constantly evolving and are intuitively designed, with easy-to-use interfaces and easy-to-understand dashboards that present information clearly so that your staff can make decisions quickly and work more productively.

Sensus Analytics "On-Demand" Reporting

Sensus FlexNet and Sensus Analytics provides Utilities data on a fixed schedule, on demand, or in response to a pre-set alarm programmable daily, hourly, 15 and 5-minute data intervals. FlexNet True Two-Way communications allows the Utility to ping any meter in the distribution system anytime and receive up-to-date consumption data reading and meter diagnostic data such as alerts, alarms, and flags. If an on-demand read is required, the utility can input a special code to specify that an additional record be created for a demand reading.

- Daily register reads from RNI to Sensus Analytics
- 15-minute and hourly interval data from RNI to Sensus Analytics
- Remote connect/disconnect requests from Sensus Analytics to RNI
- On-demand read requests from Sensus Analytics to RNI
- Meter diagnostic data such as alerts, alarms and flags (e.g. tamper flags and others) from RNI to Sensus Analytics
- On-demand power status check requests from Sensus Analytics to RNI
- Peak demand data from RNI to Sensus Analytics

Top Level Messages
Sensus Analytics is a meter data management software platform that allows water, gas, electric, and combination utilities to turn data into knowledge. Utilities can maximize the value of data collected from various devices, including meters, by efficiently managing, validating, and presenting the data in useful formats. By facilitating validation, estimation, and editing based on the incoming data, Sensus Analytics helps utilities take a system-wide view of their operations, run more efficiently, and better serve customers by turning data into intelligence.

Secondary Message
Sensus Analytics is a modular software platform that utilities can customize to meet their specific needs, from providing detailed usage reports and improving billing, to implementing a consumer portal that provides notifications about usage. As a utility's needs change over time, new modules can be added that will enhance the end user's capabilities beyond the core features.

Secondary Message – Water
Sensus Analytics supports a water utility's commitment to conservation with high usage reports, virtualization, and district segmenting. With Sensus Analytics, utilities will have the feature sets they need to intelligently and efficiently manage their data. Sensus Analytics incorporates a series of automated processes that will minimize manual intervention and provide an overall excellent end user experience. A flexible menu option allows the end user to customize the application to meet the varying needs of multiple end users within the utility operation.

For water utilities, these Sensus Analytics features improve the conservation, leak detection, and notification advancements through capabilities such as the Consumer Portal option, district metering, zero consumption reports, and scheduling.

Secondary Message – Electric, Gas, and Combo
The identified Sensus Analytics features support important gas utility initiatives, such as: Safety, Creating Do-It-Yourself customers, Theft Detection and Prevention, Billing Accuracy, and Interval Data collection.

The Sensus Analytics solution is designed to import and store all data served up by the FlexNet system, including meter tamper alarms. Operational data may include voltage, current, demand, outage/restoration notifications, blink counts, and power quality data. It includes the following information:

- Maximum/Minimum/Average Voltage – 6-hour sample periods per day (12 values per day)

- Sensus Analytics can also collect and import voltages as delivered differently by different systems, e.g. instantaneous voltage with timestamp, periodic voltage, Min-Max-Ave voltage.
- Instantaneous Voltage – As requested
- Lo/Hi Voltage Alarms – As occurred
- Tamper Alarms – As occurred
- Reverse Energy Flow – As occurred
- Outage Notification – As occurred
- Restoration Notification – As occurred
- Leak detection
- Backflow

With client systems, we have imported events both as part of the nightly import of batch meter data and delivered in real-time by the AMI system. We have used MultiSpeak and file exchange interfaces. Real-time notifications are processed immediately. Events that are included with meter data in the periodic batch import are processed with the regular data import and typically do not impact the processing time significantly.

Sensus Analytics can also dramatically reduce time wasted on investigating false positive alarms by automatically checking the status of a meter and identifying any outstanding service/work orders before passing on tamper events or automatically creating service orders to investigate. Business Automation rules can be used to monitor tamper events from the AMI system in real-time. Events can be investigated automatically through interrogation of recent service orders and then aggregated and grouped for the most efficient perusal.

Sensus Analytics views reporting as a critical component of its service, and our approach is to provide both standard canned reports as well as the ability for utilities to create custom reports using either the built-in capabilities of Sensus Analytics or their own reporting tools along with our data dictionary.

The reporting features within the Sensus Analytics Administrative console include both graphical and tabular reports. Both of these types of reports are highly interactive, with context-sensitive drill down capabilities. Reports can be readily printed, exported, saved, or scheduled for automatic generation.

Validation

Validation Failures can be listed and processed from a standard report within Sensus Analytics. The interval validation failures report can be generated manually or automatically using the Rules Engine, and the system can be set up to email the results to selected recipients. To improve speed of handling of exceptions, validation exceptions can be sorted or filtered by date, billing cycle, commodity type, AMI system, validation routine, or meter ID.

Personal review of exceptions for manual editing is made easy and efficient by Sensus Analytics. Sensus Analytics presents the user with context-sensitive links to additional information to help the user to quickly make good decisions on how to handle exceptions. When processing validation exceptions manually, the reviewer may take one of several actions:

- Accept current reads, either individually or in bulk.
- Edit reads manually.
- Have Sensus Analytics estimate reads.
- Alter or override the parameters of specific validation routines.
- In all cases, Sensus Analytics records and tracks all versions of the data, with comments.

Billing

- Summary of missing meter reads

- Exception reporting of meters that have not recently communicated, filtered by upcoming billing cycle

Meter Communications and Meter Problems
Maps are used to plot the locations of non-communicating meters, with troubleshooting to drill down and view communication routing, hop length, and collector loading. Where meter communications are failing, dependent meter reports can help assess the impact on other meters.

- Display communication status and meter data issues
- Monitor water usage restrictions

Event Reporting
- Summary and detailed reporting of leaks, tamper, reverse flow, etc.

Distribution Optimization
- Flow and loss analysis

Revenue Protection
- Exception report showing all meters on vacant accounts that are showing consumption
- Configurable rules to identify discrepancies between usage metered at a point in the distribution network and the aggregated consumption of connected meters
- Intelligent processing and presentment of tamper events – filtered, grouped, and aggregated by assessment of open or recent service orders, geographical location, priority, etc.

Rate Analysis
- Management of rate plans and application of those plans to meters for user-configurable time periods

AMI Performance Reports

AMI network communications are measured and presented in standard reports in the Sensus Analytics web user interface. Sensus Analytics imports all network connectivity information served up by the AMI system. This can include collector association, routing (including routing in a mesh network), hop count, etc. Sensus Analytics also calculates collector loading and hop length based on geo-coded locations of the meters, repeaters, and collectors.

This monitoring of AMI network communications extends from identifying malfunctioning meters to monitoring the entire AMI/AMR network. Performance of the network is measured in terms of percentage of successful reads delivered, and then intuitive map-based views allow the user to drill down and look more closely at the data. This function helps utilities understand under-performing parts of the communication network as well as identifying potential shortfalls – for instance, a mistake in the data for an upcoming billing cycle.

AMI Deployment Tracking
- Identify meters that have been deployed but are not communicating.
- Identify meters that are communicating but have not been established in the CIS.
- Visualize interim system performance by plotting meters on a map with user-configurable layers and color coding to show successful communication, RF communication routing (if applicable), mesh hop count, hop length (all if applicable), and any other data served up by the AMI network.

AMI System Monitoring
- Track read delivery performance against guaranteed target or Service Level Agreement (SLA), and view aggregation of performance statistics for multiple AMR/AMI systems.
- Sensus Analytics MDM currently provides this wide range of standard reports out of the box that serve the vast majority of common requirements for utilities – no additional reporting tools are typically required. However, if needed, additional reports can be built as custom reports using the optional

Cognos-based custom reporting tool for Sensus Analytics or any other third-party reporting package. By using the Cognos Business Intelligence tool, offered as an option to Sensus Analytics, the user can:

- Create custom reports for exclusive use by the user and only visible to that user
- Publish a report to an entire organization or subset of an organization:
  - Reports can be generated by a user and then shared within his/her own organization. Links to reports can be distributed, and the report will be generated dynamically when the recipient clicks the link. This way, the users are always viewing the most-up-to date data.
- Publish a report for use by other organizations within the overall implementation

To publish a report for use by other organizations, the user can create a report output that includes data and graphical representation of the data to share in PDF or Microsoft Excel format. If sharing a link to a dynamically generated report without incorporating the data in the report output, the data is protected according to the access permissions of the link's recipient. Note that security for reporting is configurable so that reports can be made available to specific individuals or groups as required.

Sensus strongly believes that it is extremely important for customers to be trained with their own data and in their own environment. It is important that users not be overwhelmed by a variety of options and, instead, be trained on how the organization has specifically decided to use the selected modules. The Cognos Custom Reporting module training will provide an orientation of embedded reports, the management of reports, and an overview of the report writing tool. Training time will also be dedicated to the creation of utility-specific reports and will be conducted within the Report Studio.

Lifecycle Support: AMI Customer & Technical Services

Aqua-Metric and Sensus will provide support to the City throughout the program lifecycle. The Project Management team is responsible for managing installation, commissioning, and the City's acceptance of the system. Upon acceptance, the project team transitions support to Aqua-Metric and Sensus' AMI Technical Services. Mike Wood, Chief of Technology, leads this team with years of technical project management experience. Project management experience and local support are keys to the success of the Utility's Automated Meter Reading or Advanced Metering Infrastructure project.

Software Updates

It is vital that these software applications are consistently operating at the highest level of efficiency. The FlexNet™ Software Maintenance Program provides remote troubleshooting and diagnosis of problems and access to software updates. Updates include patches and other maintenance releases of the software that correct processing errors and other faults or defects found in the previous two minor or major releases of the software. Utilities will have peace of mind knowing that Sensus technical support professionals are ready to answer questions, diagnose, and troubleshoot any issues and to help ensure the FlexNet system is up and running efficiently at all times.

Software as a Service (SaaS): Sensus shoulders the burden of owning and managing all the hardware and software from our tier IV data center. When choosing the SaaS delivery model, the FlexNet maintenance program is included in your subscription fee.

Customers will be notified of upcoming updates a week before the rollout. Included in the notification will be release notes of the issues and features to be updated and the impact on any system availability. Our experience has been that interruptions to system availability are rare, and often no interruption is needed or experienced. Our solution architecture employs primary and backup redundant nodes that allow us to move user traffic to one or the other as needed. Updates can typically be rollout to the backup environment in a few minutes, and then all user requests are routed to that backup environment as the old primary environment is then updated and brought back online.

Update Policies

Sensus monitors your servers and network connections around the clock to ensure high availability and reliability. The Sensus data center team performs all hardware maintenance as well as software patches and firmware updates to ensure you have access to the latest features. In addition to standard security testing procedures, Sensus will perform quarterly third-party audits and security testing by certified Cyber-Security partners to ensure your information is safe. In addition, Sensus eliminates your need to maintain a separate disaster recovery environment by using geographically separated data center locations.

Conclusion

City of League City has much to look forward to while setting precedence for city development and growth for a sustainable future. Aqua-Metric is pleased to partner alongside the industry's very best to deliver a comprehensive turn-key solution for the City. In addition to industry-leading AMI technology and software reading the most accurate meters on the market, City of League City will gain best-in-class customer service and technology support, second to none, throughout the life of the project and for decades to come.

Section 3.2 Questionnaire

3.2 Meter Data Management Software

Meter Data Management Software

A. Core Capabilities
   i. The MDMS Software shall comply with prevailing industry standard hardware, operating systems, databases, and user interfaces. Comply
   ii. The MDMS Software must exist as a browser-based (Internet Explorer 11 or later, Chrome, or Firefox) application that operates on a hosted server. Comply
   iii. The MDMS Software should provide a customizable file layout structure to interface with the utility's CIS for integrating meter reading data and customer information. Comply
   iv. The MDMS Software must support single and dual register meter information. Comply
   v. The MDMS Software should be capable of pulling data less than an hour old. Comply
   vi. The MDMS Software must be scalable to meet the full deployment requirements in a hosted environment without system and performance impacts to the utility. Comply
   vii. The MDMS Software shall be scalable and not require any additional licenses based on number of endpoints. Comply
   viii. The MDMS Software provider must be able to describe the methods that support scalability and associated costs. Comply
   ix. The MDMS Software must retain all meter reading data for a minimum of 36 months and provide provisions for additional storage if required. Comply
   x. The solution should be available as Software as a Service (SaaS) where the provider manages all hardware and software for the Utility. SaaS should be all inclusive for annual maintenance, licenses, upgrades and support. Comply
   xi. The AMI solution should provide graphical views to accounts if location data is provided from the Customer Information System and/or headend system. Comply
   xii. The AMI solution shall support the import of data from a Walk-By/Drive-By system to assist in a roll out program and be compatible with existing Sensus Systems (AMI). Comply
   xiii. The MDMS Software shall allow data from multiple reading technologies (AMR and AMI). The Meter Data Manager (MDM) shall act as a middleware between Customer Information Systems (CIS) and the Sensus FlexNet Regional Network Interface (RNI). Comply
   xiv. The system should offer dashboard to report on the following water-based anomalies:
      a. Reverse Flow
      b. Leak Detected
      c. Tamper

   Comply to all
   xv. MDMS Software shall have a graphical user interface (GUI). Comply
   xvi. MDMS Software shall have icon-driven accessibility for ease of navigation and addition of other applications. Comply
   xvii. The MDMS Software shall have the following administration and system configuration: Role-based privilege management (Access Control)Comply
   xviii. The MDMS Software shall be include the following groups:
      a. Filter by: AMI ID
      b. Filter by: Billing Cycle
      c. Filter by: Commodity Type

Comply to all

B. Import / Export capabilities
   i. The MDMS Software must be able to export data to Microsoft Excel, PDF, Common Separated Value (CSV), and Text files. Comply
   ii. The MDMS Software must interface to the utility's CIS/billing software. The MDMS Software must have a setup application to map simple interfaces from a CIS/Billing System. Comply
   iii. The MDMS Software must import and support GPS type data to identify and display locations of accounts geographically. Comply
   iv. MDMS Software must provide a billing export. Comply
   v. MDMS Software must have a billing export setup application. Comply
   vi. MDMS Software must have a customer information data import setup application. Comply
   vii. MDMS Software must have a billing import file setup application (billing request file method). Comply
   viii. The billing gateway should allow entry of valid start and stop times for billing purposes. Comply
   ix. The MDMS Software shall have export capabilities of greater than 5K rows. Comply

C. Meter Data
   i. The MDMS Software shall provide the ability to process hourly time-stamped meter reading taken from all meters and verify the percentage of reads received for particular areas and/or selected meter routes. This data must then be exposed to various configurable parameters set (when provided), such as high/low parameters to assure the accuracy of the data. Comply
   ii. The MDMS be able to retrieve California Metering Exchange Protocol (CMEP) files via sftp
      a. Registers – Hourly, all new registers received in last hour from all meters
      b. Intervals – Hourly, all new intervals received in last hour from all meters
      c. Alarms – Every 5 min, all new alarms in last 5min from all meters
      d. Sync – Daily, all meter state information (lat/long, status, radio id, etc.)

   Comply to all
   iii. The MDMS system must support MultiSpeak version for Flexnet RNI
      a. Alarms – Real time when received by RNI forward to subscriber MultiSpeak servers
      b. On Demand reads / Control – Real time requests from Sensus Analytics for data or control from the meter. Valve position changes, On Demand Meter Reading

   Comply to all
   iv. The MDMS Software must be able to search for records matching specified information. Comply
   v. The MDMS Software must provide the following data to the utility on a daily basis for monthly billing applications:
      a. Hourly time-stamped meter reading taken from all AMI meters for monthly billing purposes.
      b. Hourly usage/consumption readings for resolution of customer billing disputes and improved customer service.
      c. Alarm data received from AMI devices for identification of customer site problems.

   Comply to all
   vi. The MDMS Software must be able to support demand read capability to the meter. Comply
   vii. The MDMS Software must provide the capability to store all meter data information for a minimum of three (3) years. Comply
   viii. The MDMS Software must utilize the head-end system's ability to back-fill missed reads to

eliminate the need for validation routines. Comply

ix. The MDMS Software shall have the following GIS, CIS, and SCADA business interface services:
   a. Customer Information System (CIS) integration
   b. CIS daily synchronization
   c. CIS daily synchronization file mapping integration without coding
   d. CIS billing export
   e. CIS billing export file mapping without coding
   f. CIS on demand reads
   g. Supervisory Control and Data Acquisition (SCADA) integration via professional services

Comply to all

D. Data Analytics
   i. The MDMS Software must perform a high low analysis report. The MDMS Software must be able to check the reported value for the reading is within a percentage threshold of the historic average for the meter, taking into account seasonal variance (or a set value provided from the Customer Information System). Comply
   ii. The MDMS Software must allow a standard customizable report on continuous usage, needed for use in leak detection. Comply
   iii. The AMI solution should be able to identify and report revenue protection incidents. Comply

E. Data Reporting
   i. MDMS Software should translate data for use with reports. Comply
   ii. MDMS Software should have ability to search meter data. Comply
   iii. The MDMS Software must provide Alert capabilities to include the following:

Alarm	Water	Gas	Electric	Lighting
Tamper Report	X		X	
Meter Read Failure	X	X	X	X
Metro Bad Register Number				
Cut Wire	X	X		
Leak Detected	X	X		
Meter Communication Failed	X	X		
Non Numeric Read	X	X	X	X
Magnetic Tamper	X	X	X	X
Swapped Meter	X			
Meter Communication Failed 30 Days Latched	X	X	X	X
Meter Low Battery	X		X	
Critical Hardware Warning	Ally			
Alarm Overflow Latched	X	X	X	X
Touch Read Failure Latched	X			

iv. The MDMS Software must provide the following reports:
   a. All Alarms
   b. Billing Request Mismatch
   c. Consumption Exception (24 Hours)
   d. Consumption
   e. Consumption vs Previous Read
   f. Endpoint Details
   g. High Low Exception Report
   h. Master Route Interval Reads
   i. Master Route No Readings
   j. Master Route Register Reads
   k. Mismatch Report
   l. Negative Consumption
   m. Orphaned Meters
   n. UoM Comparison
   o. Zero Consumption for Period

Comply to all

v. The MDMS Software must have the ability to alert appropriate personnel of certain triggered alarms. Comply

vi. MDMS Software must have email notification of alerts. Comply

vii. MDMS Software must have text message notification of alerts. Comply; however, this is an additional charge. Pricing has been provided as an option in our proposal pricing page.

viii. The MDMS Software must provide a geo-spatial/map view that includes:
   a. Display of meters
   b. View assets with events on map

Comply to all

F. Device Access
   i. From one application and without having to search on the account a second time, the Customer Service Representative (CSR) should be able to see all account information, interval and register reads for a selectable amount of time, and see any alarms that have been reported for the account. Comply
   ii. This information should be exportable to the windows clipboard, pdf file, CSV file or Excel. Comply

G. Software Provider
   i. MDMS Software shall be Sensus Analytics Enhanced Version Software or approved equal as determined by the utility. Comply

Hosting

A. The proposed solution must host the MDMS Software on server hardware at a remote secure data center. Comply
B. The Proposer will provide upgrades the MDMS Software to Latest Releases, Including all security patches and updates. Comply
C. The Proposer will submit a daily file containing consumption reads and all available alarms collected by the network, including exception reports such as zero Consumption Reads, non-responding meters (including traceability to the meter location when the utility provides the meter location codes to Sensus) Comply

D. The Proposer will provide 24x7x365 server and network monitoring using diagnostic software tools. Comply
E. The Proposer will provide secure, off-site vaulting of encrypted backup tapes containing one year of history for auditing purposes. Comply
F. F. The Proposer will provide a disaster recovery solution via data replication to a fault tolerant data center with 1 business day or less recovery time. Comply

Customer Portal Overview

Consumer Portal Software

A. Customer Web Portal
   i. The software shall be accessible to customers using PC web browsers (Internet Explorer or Firefox) or mobile web browsers from major manufacturers. Comply
   ii. The software shall allow the customer to initialize an account using address, account number and amount of the last payment received. Initializing a customer account shall require no involvement of City staff, everything should be done through e-mail. Comply
   iii. The software shall allow the customer to set up an e-mail user name and a password of a specific length. Comply
   iv. The software shall allow the customer to retrieve or re-set their forgotten password via the previously established email. Comply
   v. It must show 24 hours of hourly meter reading data. It should also have the option of showing 7 days, 30 days and 12 months of meter data Comply
   vi. Allow customers to manage multiple accounts with City under one user id. Comply
   vii. Allow customers that have multiple meters on same account to be show on a single account. Comply
   viii. Provide city ability to customize and make it look like the cities other websites and incorporate their logo. Comply
   ix. Ability to send **email, text** when **Water Meters** report:
      a. Billing Cycle Usage Warning
      b. Vacation Usage Warning
      c. Leak Detected

   Comply to all
   x. Ability to translate/show portal text in English or Spanish. Comply
   xi. Provide dashboard for showing this month vs. last month for the billing periods.Comply
   xii. Allow city to post notices to customers in Customer Portal. Comply
   xiii. The solution should be available as Software as a Service (SaaS) where the provider manages all hardware and software for the Utility. SaaS should be all inclusive for annual maintenance, licenses, upgrades and support. Comply

Hosting

G. The proposed solution must host the Portal Software on server hardware at a remote secure data center. Comply
H. The Proposer will provide upgrades the Portal Software to Latest Releases, Including all security patches and updates. Comply
I. The Proposer will maintain a web portal access to the MDMS Software. Comply
The Proposer will provide secure, off-site vaulting of encrypted backup tapes containing one year

of history for auditing purposes. Comply

J. The Proposer will provide a disaster recovery solution via data replication to a fault tolerant data center with 1 business day or less recovery time. Comply

Client References

City of Arlington, TX 112,000 Services

1100 SW Green Oaks Blvd., Arlington, TX 76017 • Phone: (817) 459-6811 • Fax: (817) 459-5888
John Norman – Meter Services Manager
Email: normanj@ci.arlington.tx.us
Sensus FlexNet AMI Logic Hosted Water System with MeterSense MDMS – enQuesta Billing Software. Aqua-Metric provided AMI and metering product.

City of Weatherford, TX 24,000 Services

303 Palo Pinto St., Weatherford, TX 76086 • Phone: (817) 598-4000
James Hotopp – Assistant City Manager
Email: jhotopp@weatherfordtx.gov
Sensus FlexNet AMI Water/Electric System – Incode Billing Software

City of Victoria, TX 24,000 Services

PO Box 1758, Victoria, TX 77902 • Phone: (361) 485-3414 • Fax: (361) 485-3385
Donald Reese, Assistant Public Works Director
Email: dreese@victoriatx.org
Sensus FlexNet AMI Water System – ASI Billing Software

City of Cedar Park, Texas 23,000 Services

2401 Brushy Creek Road, Cedar Park TX 78613 • Phone: (281) 554-1336
Nanette McCartan – Utility Programs Manager
Email: Nanette.mccartan@cedarparktexas.gov
Scope of Work: Water meter installation project for Sensus AMI System.

City of Brenham, TX 20,000 Services

315 W. 2nd St., Brenham TX 77833 • Phone: (979) 377-7411 • Fax: (979) 337-7554
Lowell Ogle – Public Utilities Director
Email: loweool@ci.brenham.tx.us
Sensus FlexNet AMI Water/Gas/Electric System – Incode Billing Software

City of Desoto, TX 18,500 Services

211 E. Pleasant Run Rd., Desoto, TX 75115 • Phone: (972) 230-9645 • Fax: (972) 230-5795
Tonya Warren – Customer Service Manager
Email: twarren@ci.desoto.tx.us
Sensus FlexNet AMI Water System with current product installation – STW Billing Software.

City of Nacogdoches, TX 17,000 Services

1023 Power St., Nacogdoches, TX 75963 • Phone: (936) 559-2593 • Fax: (936) 559-2909
B.D. Rambin – Meter Foreman
Email: rambinb@ci.nacogdoches.tx.us
Sensus FlexNet AMI Water System – Incode Billing Software

City of Euless, Texas 14,500 Services

201 N Ector Drive, Euless TX 76039 • Phone: (817) 685-1617
Jeff Pearson – Civil Engineer

Email: jpearson@eulesstx.gov
Scope: Water meter installation project for Sensus AMI System.

City of Liberty, TX 14,000 Services

1829 Sam Houston St., Liberty, TX 77575 • Phone: (936) 336-3684 • Fax: (936) 336-9846
Gary Broz – City Manager
Email: gbroz@cityofliberty.org
Sensus FlexNet AMI Water/Electric System – Incode Billing Software

City of Paris, TX 10,300 Services

165 W Center, Paris, TX 75460 • Phone: (903) 886-1152 • Fax: (903) 784-2429
Gene Anderson – Finance Director
Email: ganderson@paristexas.gov
Sensus FlexNet AMI Water System – STW Billing Software

Canyon Lake Water Service Company, TX 9,000 Services

1399 Sattler Rd., New Braunfels, TX 78132 • Phone: (830) 964-2166
Terry Stark – Business Manager
Sensus AMR Water System

City of Corsicana, TX 8,000 Services

200 N. 12th St., Corsicana, TX 75110 • Phone: (903) 654-4819
Diane Williams – Utility Billing Supervisor
Sensus AMR Water System

City of Converse, TX 7,000 Services

9239 Converse Business Lane, Converse, TX 78109 • Phone: (210) 658-3453
Tracy Compos – GIS Manager
Email: gis-manager@conversetx.net
Sensus FlexNet AMI Water System – UBS Billing Software

City of Lockhart, TX 7,000 Services

705 Wichita St., Lockhart, TX 78644 • Phone: (512) 398-3461 • Fax: (512) 398-5039
Joe Chavira – Water/Wastewater Supervisor
Email: jchavira@lockhart-tx.org
Sensus FlexNet AMI Water/Electric System – Incode Billing Software

City of Hempstead, TX 6,300 Services

125 Austin St., Hempstead, TX 77445 • Phone: (979) 826-2486
Michael Wolfe – Mayor
Mayorwolfe1125@yahoo.com
Sensus FlexNet AMI Water/Electric/Gas System – Incode Billing Software

City of Alvin, Texas 6,000 Services

216 W Sealy St., Alvin TX 77511 • Phone: (281) 388-4200
Brian Smith – Public Services Director
Email: bsmith@psf.cityofalvin.com

Scope of Work: Water meter installation project for Sensus AMI System

City of Universal City, TX 6,000 Services

265 Kitty hawk Rd., Universal City, TX 78148 • Phone: (210) 658-5364 • Fax: (210) 566-2634
Randy Luensmann – Public Works Director
Email: publicworksdirector@universalcity.com
Sensus FlexNet AMI Water System – Incode Billing Software

City of Bastrop, TX 5,700 Services

1311 Chestnut St., Bastrop, TX 78602 • Phone: (512) 332-8830 • Fax (512) 332-8869
Tracey Moffett – Customer Service Supervisor
Email: thmoffett@cityofbastrop.org
Turn Key Sensus FlexNet AMI Water/Electric System – Incode Billing Software

City of Katy, TX 5,200 Services

910 Avenue C, Katy TX 77493 • Phone: (281) 391-4800
Jason Machicek – Director of Public Works
Sensus AMR Water System

East Central Special Utility District, TX 4,500 Services

5520 FM 1628, Adkins, TX 78101 • Phone: (800) 354-2383 • Fax: (210) 649-1462
Arthur Strzelczyk – General Manager
Email: eastcentralwater@sbcglobal.net
Sensus FlexNet AMI Water System – Enhance Billing Software

City of Stephenville, TX 4,200 Services

298 W. Washington St., Stephenville, TX 76401 • Phone: (254) 918-1226 • Fax: (254) 918-1207
Lane Sharp – Customer Service Supervisor
Email: lsharp@stephenvilletx.gov
Sensus FlexNet AMI Water System – Incode Billing Software

City of Humble, TX 4,000 Services

114 W Higgins St., Humble, TX 77338 • Phone: (281) 446-3061 • Fax: (281) 446-5347
Barry Brock – Public Utilities Director
Sensus FlexNet AMI Water System – STW Billing Software

City of Bellville, TX 3,600 Services

30 S. Holland St., Bellville, TX 77418 • Phone: (979) 865-3136 • Fax: (979) 865-9485
Shawn Jackson – Assistant City Administrator
Email: sjackson@cityofbellville.com
Sensus FlexNet AMI Water/Gas/Electric System – Incode Billing Software

Caddo Basin Special Utility District, TX 3,400 Services

156 County Road 1118, Greenville, TX 75401 • Phone: (903) 527-3504 • Fax: (903) 527-4805
Kevin Wendland – Operations Manager
kw21941@yahoo.com

Sensus FlexNet AMI Water System – Incode Billing Software

City of Bridgeport, TX 3,200 Services

901 Cates St., Bridgeport, TX 76426 • Phone (940) 683-3462 • Fax: (940) 683-3401
James Elliot – Director of Utility Services
Email: jelliott@cityofbridgeport.net
Sensus FlexNet AMI – Water and Electric System – Incode Billing Software

Lindale Rural Water, TX 2,900 Services

15934 CR 431, Lindale, TX 75771 • Phone: (903) 882-3335 • Fax: (903) 882-6822
Sam Beeler – General Manager
Email: sam@lindaleruralwater.com
Sensus FlexNet AMI Water System – RVS Billing Software

City of Columbus, TX 2,900 Services

605 Spring, Columbus, TX 78934 • Phone: (979) 732-2366 • Fax (979) 732-8213
Donald R. Warschak, P.E. – City Manager
Email: drw89@columbustexas.net
Turn Key Sensus FlexNet AMI Water/Gas System – Incode Billing Software

City of Brazoria, TX 2,400 Services

201 South Main St., Brazoria, TX 77422 • Phone: (979) 798-2489 • Fax: (979) 798-9144
David Jordan – Public Works Director
Email: pwdirector@cityofbrazoria.org
Sensus FlexNet AMI Water/Gas System – Incode Billing Software

City of Commerce, TX 2,400 Services

1119 Alamo St., Commerce, TX 75428 • Phone: (903) 886-1152 • Fax: (903) 886-4319
Karen Lightfoot – Utility Billing
Sensus FlexNet AMI Water System – Incode Billing Software

City of Groesbeck, TX 2,400 Services

402 W Navasota., Groesbeck, TX 76642• Phone: (254) 729-3293 • Fax: (254) 729-0231
Brenda Jackson – City Secretary
Email: bjackson@cityofgroesbeck.com
Sensus FlexNet AMI Water System – USTI Billing Software

City of Celina, TX 2,300 Services

142 N. Ohio St., Celina, TX 75009 • Phone: (972) 382-2682
Mike Foreman – City Manager
Sensus FlexNet AMI Water System – Incode Billing Software

City of New Boston, TX 2,200 Services

307 South Elm, New Boston, TX 75570 • Phone: (903) 628-5596 • Fax: (903) 628-2581
Karen Lightfoot – Utility Billing
Sensus FlexNet AMI Water System – RVS Billing Software

City of Brady, TX 2,000 Services

201 E. Main St., Brady, TX 76825 • Phone (325) 597-2152 • Fax: (325) 597-0556
Lisa Remini – Finance Director
Email: finance@bradytx.us
Turn Key Sensus FlexNet AMI – Water, Gas, and Electric System – Incode Billing Software

City of Los Fresnos, TX 2,000 Services

200 N Brazil St., Los Fresnos, TX 78566 • Phone: (956) 233-5768 • Fax: (956) 233-9879
Mark Milum – City Manager
Email: mmilum@citylf.us
Sensus FlexNet AMI Water System – Incode Billing Software

City of Luling, TX 2,000 Services

509 E Crockett St., Luling, TX 78648 • Phone: (830) 875-2481 • Fax: (830) 875-2038
Jessica Tucker – Revenue Collections Supervisor
Email: revcollectionssuper@cityofluling.net
Sensus FlexNet AMI Water/Electric System – Incode Billing Software

City of Eastland, TX 1,900 Services

113 E Commerce, Eastland, TX 76448 • Phone: (254) 629-8321 • Fax: (254) 629-3171
Leslie Zander – Finance Director
Email: lzander@txol.net
Turn Key Sensus FlexNet AMI Water System – Incode Billing Software

City of Woodville, TX 1,600 Services

400 W. Bluff St., Woodville, TX 75979
George Melancon – Construction Manager (McKinstry) • Phone: (210) 267-7147
Email: georgem@mckinstry.com
Turn Key Sensus FlexNet AMI Water and Gas System – enhance Billing Software

City of Diboll, TX 1,500 Services

400 Kenley St., Diboll, TX 75941 • Phone: (936) 826-1431 • Fax: (936) 829-1179
Elvia Garza – Finance Director
Email: elvia@cityofdiboll.com
Sensus FlexNet AMI Water System – USTI Billing Software

City of Winters, TX 1,500 Services

310 S Main, Winters, TX 79567 • Phone: (325) 754-4424 • Fax: (325) 754-4284
Shelly Antilley-Guevara – City Secretary
Email: shelly@wtxs.net
Sensus FlexNet AMI Electric System – Incode Billing Software

City of Mont Belvieu, TX 1,400 Services

11607 Eagle Dr., Mont Belvieu, TX 77580 • Phone: (281) 576-6147
Larry Jordan – Public Works Manager
Email: ljordan@montbelvieu.net
Turn Key Sensus FlexNet AMI Water System – Incode Billing Software

City of Goldthwaite, TX 1,300 Services

1218 Fischer St., Goldthwaite, TX 76844 • Phone: (325) 648-2695 • Fax: (325) 648-2570
Robert Lindsey – City Manager
Email: citymgr@centex.net
Sensus FlexNet AMI Electric System – Incode Billing Software

City of Goliad, TX 1,000 Services

152 W End St., Goliad, TX 77963 • Phone: (361) 645-3454 • Fax: (361) 645-8315
Larry Zermeno – Finance Director
Sensus FlexNet AMI Water System – Incode Billing Software

Tab F: Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Thirkettle Corporation dba Aqua-Metric Sales Company

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☑ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☑ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

N/A

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 K.

Signature of vendor doing business with the governmental entity

_____

Date

PROPOSER CERTIFICATION AND ADDENDA ACKNOWLEDGEMENT

By signature affixed, the proposer certifies that neither the bidder nor the firm, corporation, partnership, or institution represented by the bidder, or anyone acting for such firm, corporation, or institution has violated the anti-trust laws of this State, codified in Section 15.01, et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such fine of business.

Proposer has examined the specifications and has fully informed themselves as to all terms and conditions. Any discrepancies or omissions from the specifications or other documents have been clarified with City representatives and noted on the bid submitted.

Bidder guarantees product offered will meet or exceed specifications identified in this RFP.

Bidder must initial next to each addendum received in order to verify receipt:

Addendum #1_____ Addendum #2_____ Addendum #3_____

Addendum #4_____ Addendum #5_____ Addendum #6_____

Bidder Must Fill in and Sign:

NAME OF FIRM/COMPANY: Thirkettle Corporation dba Aqua-Metric Sales Company

REPRESENTATIVE's NAME: Kristy Segarra

REPRESENTATIVE's TITLE: Manager, Bids and Proposals

MAILING ADDRESS: 6700 Guada Coma Drive

CITY, STATE, ZIP: Schertz, Texas 78154

PHONE & FAX NUMBERS: P: (10) 967-6300; F: (210) 967-6305

E-MAIL ADDRESS: kristy.segarra@aqua-metric.com

AUTHORIZED SIGNATURE: K.

DATE: June 23, 2017

EXHIBIT "A"
SERVICES

1. Services:

Contractor will serve as:

Prime integrator responsible for implementation, configuration, and training of Sensus Analytics MDM System with customer portal.

2. Deliverables:

Contractor will deliver the following (Attach additional sheet, if necessary):

1. All items are services and software only, no physical product will be delivered.
2. All software and service deliverables are provided within the Proposal Pricing section of our response
3. This includes: RNI Setup, Education / Training, and Annual Services
4. Includes: Sensus Analytics, Setup, Education / Training, Billing Integration and Annual Services
5. Includes: Project Management
6.
7.
8.
9.

Aqua-Metric requests the opportunity to finalize this document under further conversation with the City.

EXHIBIT "B"
COMPENSATION

1. **Compensation (Select one item):** Please refer to Aqua-Metric's pricing proposal for service fees and payment schedules.

☐ Contractor shall be paid a fee of _____ per person for a not to exceed amount of _____ for services.

OR

☐ Compensation shall be based on a **daily rate** of _____ dollars ($_____) for _____ (____) days between _____and_____, _____ (year).

OR

☐ Compensation shall be based on an **hourly rate** of _____ dollars ($_____) for a total amount of _____ (____) Service hours.

**$296,132.72 + Bonding

Total compensation paid by CITY to Contractor for Services shall not exceed _*_____ dollars ($__**__), which amount does not include applicable sales tax or reimbursable expenses (below), without the express written consent of CITY.

Two-Hundred Ninety-Six Thousand, One-Hundred Thirty-Two Dollars and Seventy-Two Cents + Bonding

Compensation will be made upon completion of services and in accordance with the Texas Prompt Payment Act.

Individual Services to be invoiced as completed.

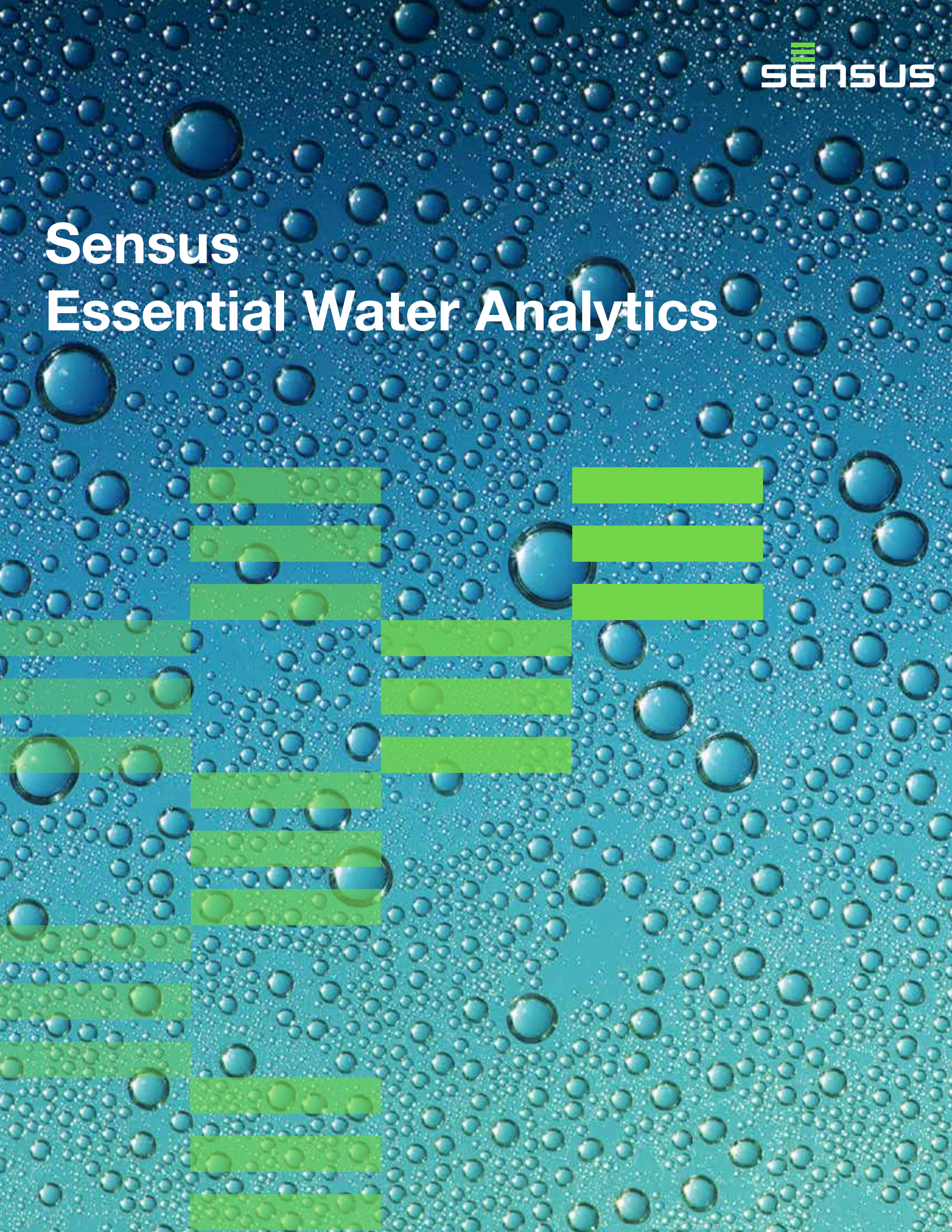
2. **Reimbursable Travel Expenses:**

Reimbursable Travel Expenses under this Agreement and charged to CITY will not exceed N/A dollars ($N/A):

Reimbursable Expenses included in this agreement are listed as follows:

As long as the City of League City maintains their annual subscriptions and support services, Aqua-Metric will not charge the City for time and travel, or other employee expenses.

Aqua-Metric requests the opportunity to finalize this document under further conversation with the City.



Sensus
Essential Water Analytics

Management insight as clear as the water you deliver.

Now that’s refreshing.

Sensus Essential Water Analytics provides the core business functionality you need to streamline customer service and operations.

Part of our suite of intelligent infrastructure software, this bundle of applications equips you with user-friendly dashboards, so you can make informed decisions quickly and confidently. Our powerful data management tools aggregate information from your AMI, AMR and other sources. And these intuitive apps are delivered by a secure connection to the cloud right to your desktop, tablet or smart phone - just a click, tap or touch away - wherever and whenever you want.

Role-based access allows service providers to share information across the organization - from customer service and operations to accounting and rates - for improved productivity, visibility and decision-making.

Sensus Essential Water Analytics:

Data Store - a secure, cloud-based information warehouse that stores system and network data for the applications. Three years of storage is included.

Report Access - a management tool that offers a menu of reports that instantly summarize the information you need to know right away

Device Access - a customer service tool that presents detailed usage history and trends, identifies anomalies and enables custom alert programming to track specific issues

Billing Access - a billing interface tool that previews and audits billing extracts for issues, enabling the utility to take corrective action, then generates final billing files for production

Meter Insight - a validation tool that provides a summary of incoming network meter data from and identifies issues to be addressed

Big data doesn't have to be a big deal.

We believe in making data easy to work with. That's why Sensus Analytics offers you the flexibility to purchase single applications or pre-bundled packages of our most popular apps to harness the power of big data for energy and water utilities.

Our cloud-based platform aggregates data from different information systems across your company into intuitive applications that are easy to use and quick to implement. That means less reliance on IT resources and lengthy training and more customer satisfaction, service reliability, quality and operational efficiency.

Here's how we do it:

App-based
Each purpose-built application accesses data from multiple systems and presents it in user-friendly dashboards

Flexible
Select a package of tools for billing and system management or single applications that help achieve key initiatives

Accessible
Our secure, cloud-based delivery platform puts your information within reach no matter where you are

Affordable
There's no need to purchase, install, update or maintain special software, licenses or hardware - or set aside valuable office space to house it

Fresh
Applications are continuously updated as information enters the system, so you can make decisions based on the latest data

Integratable
Sensus Analytics draws information from many systems through the cloud, so there's little time and cost required for standard systems integration

Scalable
Our Data Store and three years of included cloud-based storage enables you to add applications, or increase storage, quickly – often in hours

Visible
Role-based access allows information sharing across the organization - from customer service and operations to accounting and rates - for improved efficiency and cross-functional understanding

Ready to learn more?

Visit sensus.com/analytics, click the "request a demo" button to schedule a personal demonstration with one of our analytics specialists.

Corporate Information

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About Sensus

Sensus helps a wide range of public service providers—from utilities to cities to industrial complexes and campuses—do more with their infrastructure to improve quality of life in their communities. We enable our customers to reach farther through the application of technology and data-driven insights that deliver efficiency and responsiveness. We partner with them to anticipate and respond to evolving business needs with innovation in sensing and communications technologies, data analytics and services. Learn more at sensus.com and follow us on Facebook, LinkedIn and Twitter through @sensusglobal.

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