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# **AMI Metering Asset Management: Enhance Revenues and Deliver Superior Customer Service for Raytown Water Co, MO**

## **Raytown Water Co Presentation with Pricing Proposal**

Tom Stechmann  
Water System Consultant

December 10th, 2020

EXHIBIT *A*



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# **AMI Metering Asset Management Enhance Revenues & Deliver Superior Customer Service**

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- | SUEZ (USCI) Company Overview
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- | AMI System Selection with Propagation Study
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# SUEZ Advanced Solutions

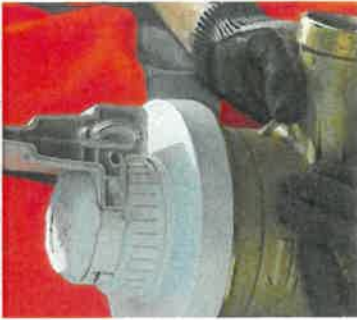
North American Leader in Water Asset Management Solutions

 <p><b>600+</b> Employees (Full Time Engineering Dept.)</p>	 <p>Founded in USA <b>half a century ago</b> (Based in Atlanta, GA)</p>	 <p><b>4,000+</b> municipal &amp; industrial customers</p>	 <p><b>8,000+</b> water assets managed</p>
 <p><b>24</b> service centers nationwide. 30+ NACE Inspectors</p>	 <p><b>50</b> community-based water system consultants</p>	 <p>World-class innovative technologies</p>	 <p>Technological and financial strength from Global leader</p>



# SUEZ Advanced Solutions Offerings & Asset Management / Maintenance Programs

Network assets & Meters



- Maintenance program with AMI
- Advanced Network management (Aquadvanced)
- Network condition assessment and rehabilitation

Steel Water Tanks



- Condition assessment
- Maintenance program
- Exterior and Interior Rehabilitation
- Emergency repairs (MP Programs)
- Drone inspections

Water Quality



- Asset chemical cleaning
- Mixers
- THM removal
- Ice Pigging
- Filter media replacement

SIPP  
(Spray-In-Place Pipelining)



- Cost Effective Pipe Rehabilitation
- Structural Enhancement of Pipelines
- Reduces Risks of Future Leaks and Failures

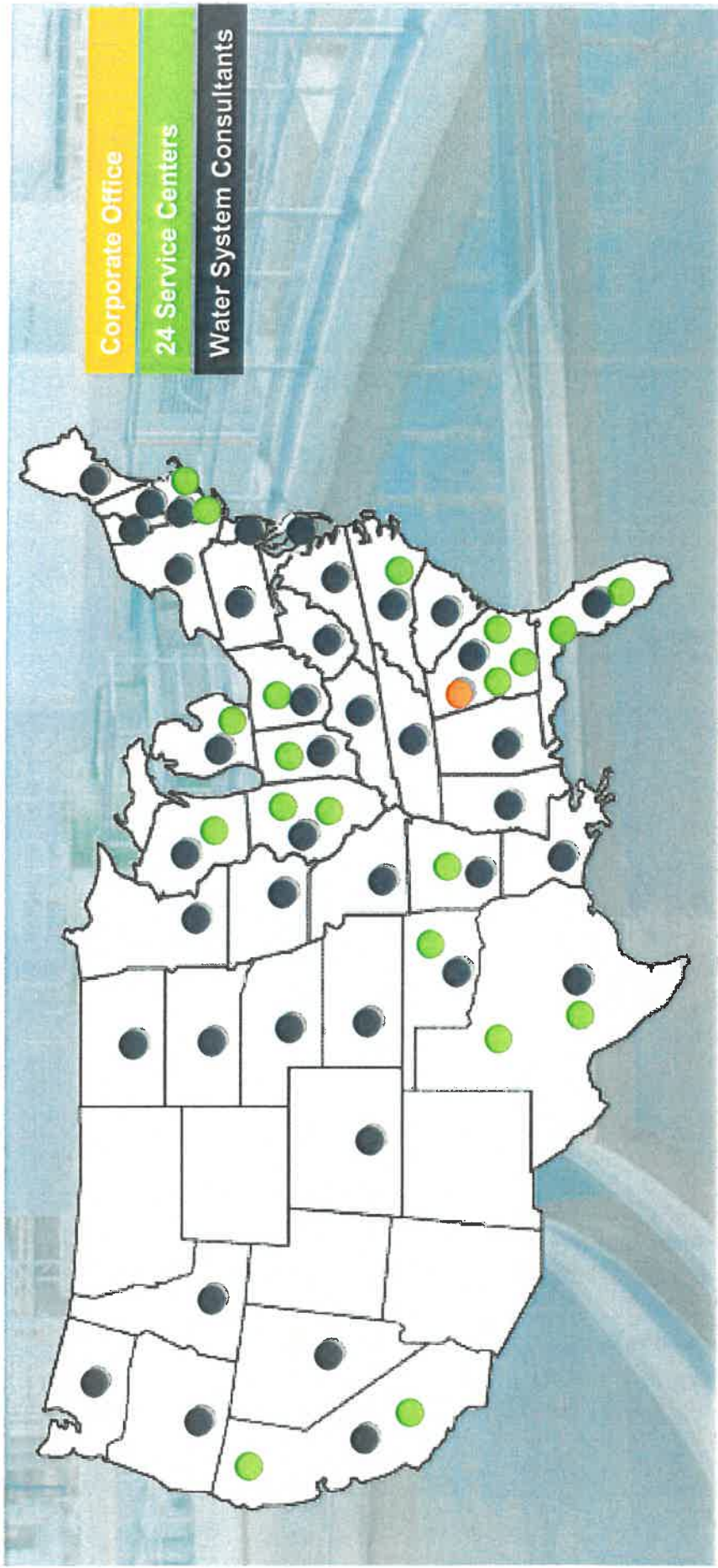
Concrete Structures



- Condition assessment
- Maintenance program
- Rehabilitation
- Water, wastewater and storm water assets

# SUEZ Water Advanced Solutions

Experienced Problem Solvers Nationwide





# **AMI Metering Asset Management & Maintenance Program:**

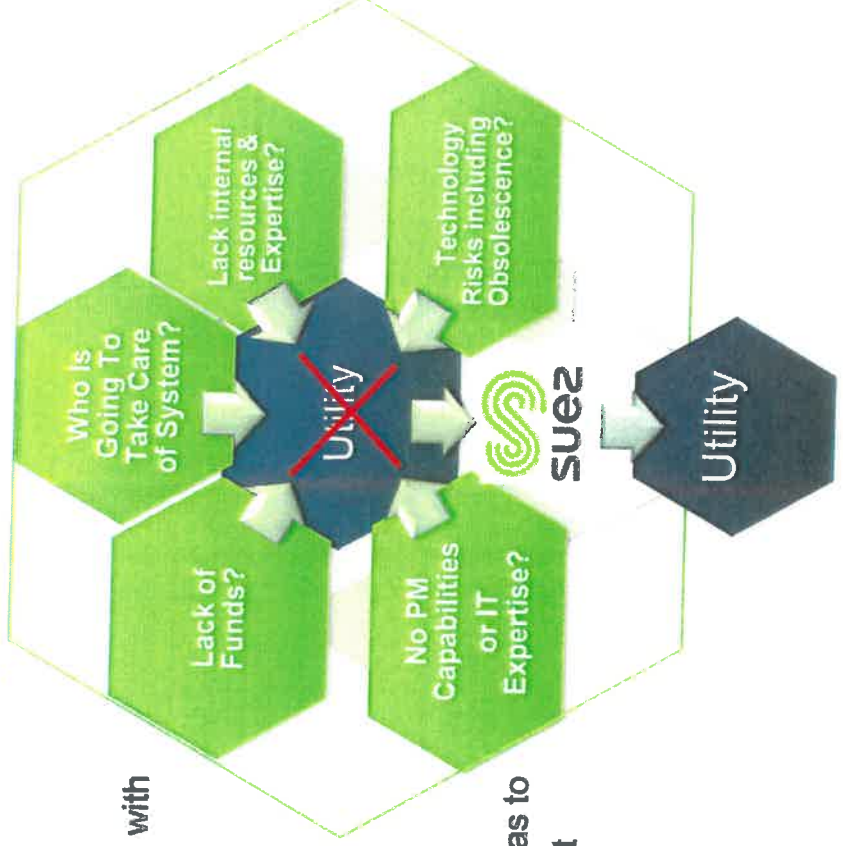
**Value Proposition - Asset Management & Maintenance Program**



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## AMI Metering Asset Management – Value Proposition

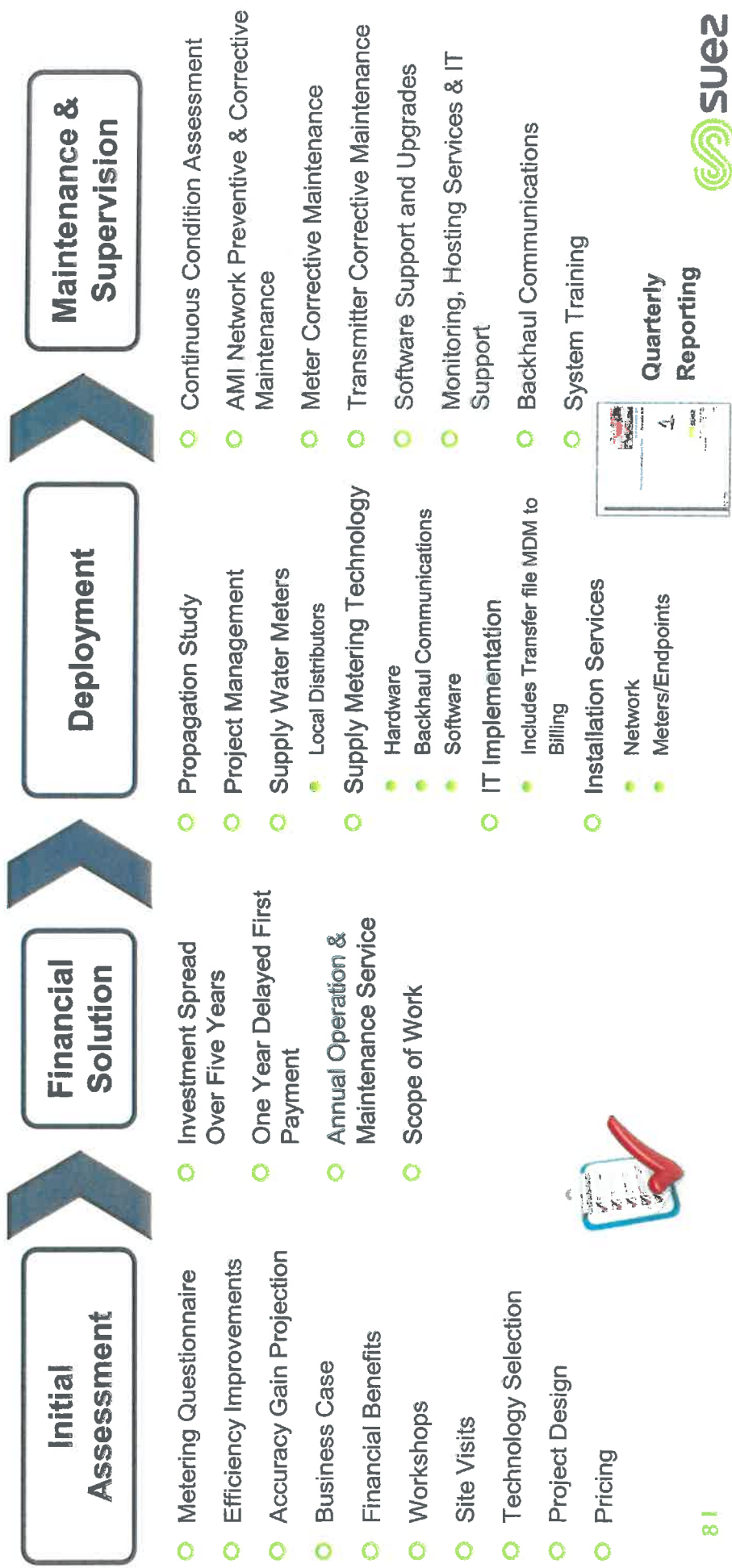
- **What is SUEZ (USCI) Sole Service Offering?**
  - A Full Comprehensive Asset Management AMI/Metering Program with Preventative and Corrective Maintenance.
- **Who Is The Program Designed For?**
  - This program is specially designed for Small to Mid-Size Utilities.
- **Why Such A Program for Small to Mid-Size Utilities?**
  - Small to Mid-size Utilities want all of the benefits an AMI system has to offer, but lack the funds, project management resources, and most importantly the ability to **Take Care of an AMI System over its Lifetime.**





# Asset Management with Metering Maintenance Program

## What's Included?





# AMI Metering Asset Management & Maintenance Program:

Benefits of AMI

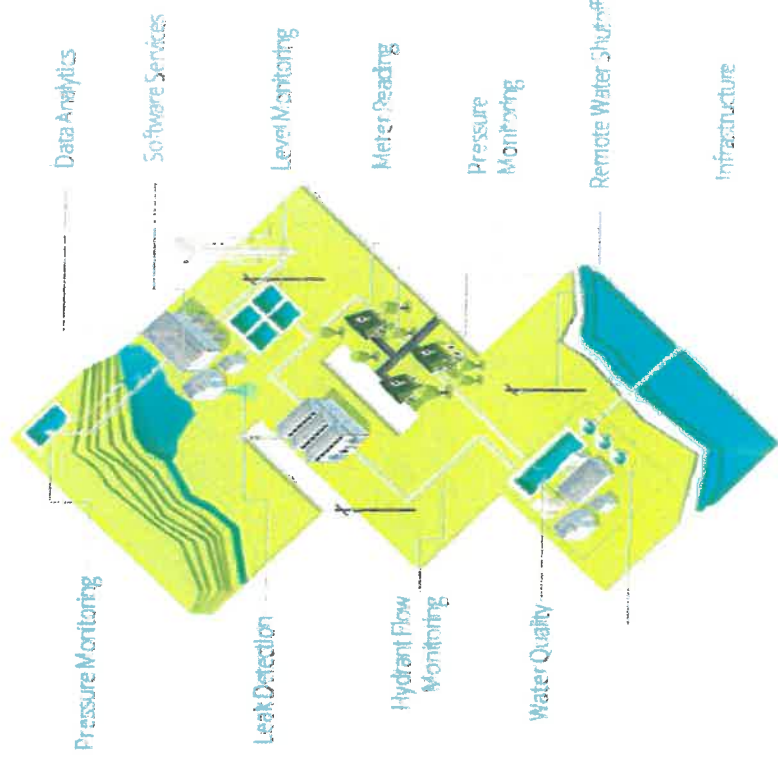


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## Today's Solution – Benefits of AMI

### Benefits of AMI

- Data Resolution
  - Hourly Water Meter Readings
- Revenue Enhancement
  - Reduce Billing Adjustments, Theft Detection, Revenue Forecasting
- Operating Cost Savings
  - Meter Reading Cost Savings, Customer Service Call Savings
- Improved Customer Service
  - Reactive to Proactive, Anticipate Notifications, More Detailed Information to Customer, Resolve Inquiries with First Call. Flexible Billing
- Operational Tools
  - Conservation, Right Sizing, Water Accountability
- Better Asset Management
  - Asset Accountability
- Responsible Resource Management
  - Reduce Non-Revenue Water





## Benefits of AMI: Real World Experience

### Real-World Experience

- Reductions in number of field investigations by utility personnel
- Reductions in volume of inquiries at call center (After an initial increase)
- Identification of significant theft
- Non-revenue water reduction
- Extremely high performance - 99%+ expected read rate

Benefits

# AMI Metering Asset Management & Maintenance Program:

AMI System Selection with Propagation Study



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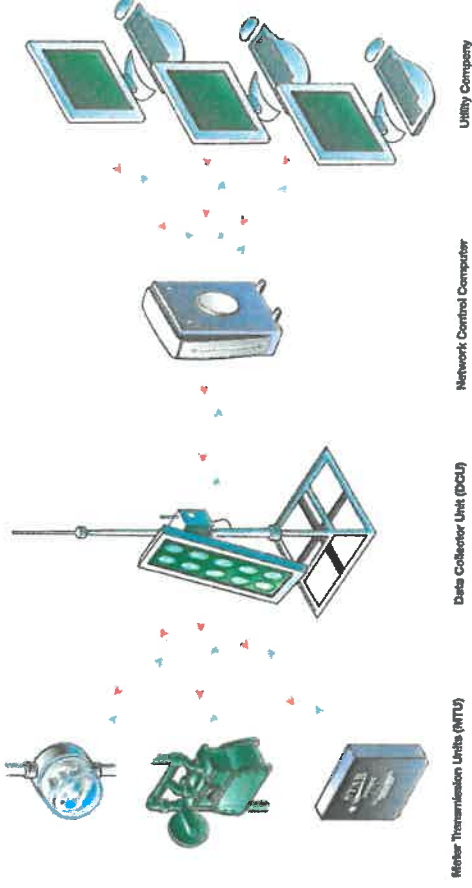
# SELECTION

Recommendation

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## ACLARA STAR AMI SYSTEM

- Benefits:
  - Open System, Customer Portal Option
  - Water, Gas and Electric, Leak Detection, Pressure
  - Powerful Analytics
  - User Friendly Software
  - Expandable
  - Low Cost Infrastructure with a Level of Redundancy



## Positive Displacement

- Benefits:
  - Solid Manufacturer
  - Mechanical
  - Local Distribution



Raytown, MO Water Full Deployment Propagation Study.  
Extended PRT Endpoints

Predicted Redundancy

	MTU Coverage %	Overall Coverage %
Single	1.3%	99.9%
Double	17.2%	98.6%
Triple	81.6%	81.4%

DCU Count

DCU Site Type	DCU Count
Customer Sites	3
Aciera Proposed	9
Total DCUs	12

DCU Quantity and Antenna Type

DCU Site Type	DCU Count	Antenna Height (ft)
Electric Pole	N/A	N/A
Non-Transmission Pole	N/A	N/A
Roof Mount	N/A	N/A
Tank / Tower	3	varied
Lattice Tower	N/A	N/A
Aciera Proposed Pole	9	30
Total DCUs	12	

Customer Data

Type	Provided Count	Modeled Count*
Meters	5,157	5,157
Customer Assets (Non-Poles)	5	3
Customer Poles	n/a	n/a

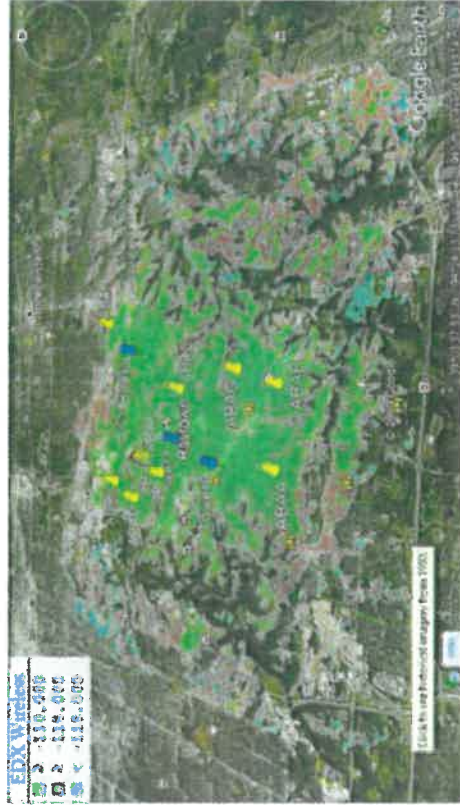
Developmental Factors

Solar Panels Required:	1
Solar Panel Tilt:	49
Area Wind Rating > 120 MPH:	No
Antenna Type:	EM Wave

Coverage Territory

Metric	Value
Total Area (SqM)	20
Avg. MTU per SqM	258
Avg. MTU per DCU	430
Highest DCU Elevation	1,055
Lowest DCU Elevation	880

Propagation Study

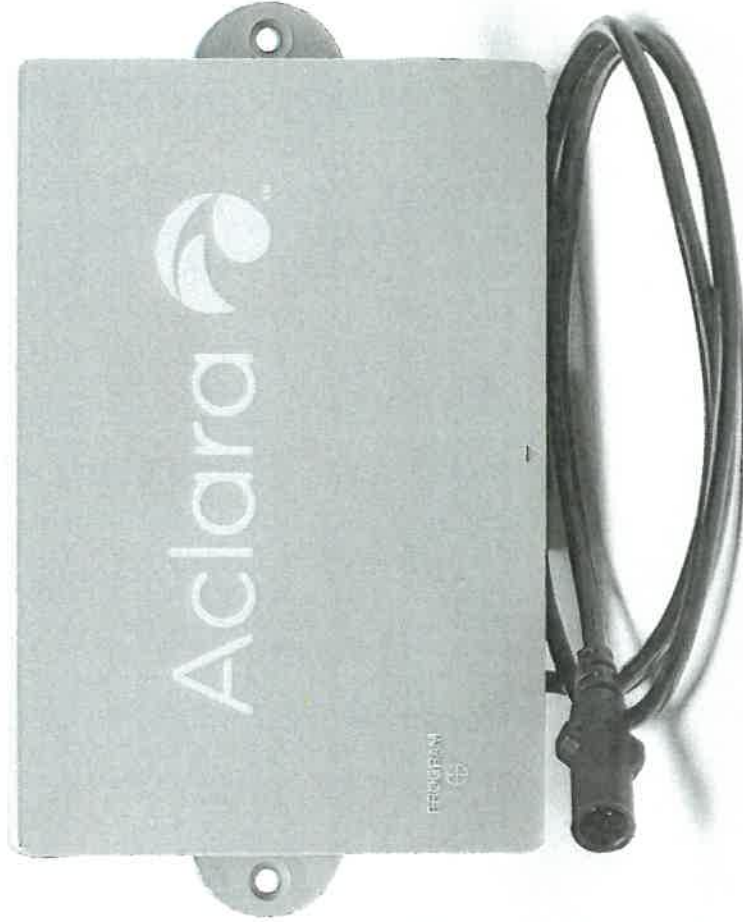


DCU Location Name	Latitude	Longitude	Antenna Height	Type
ABAA	38.97519662	-94.47686667	30	Aciera Site
ABAD	39.02886562	-94.49232075	30	Aciera Site
ABAH	39.0404579	-94.42587671	30	Aciera Site
ABAF	39.02579412	-94.47707945	30	Aciera Site
ABAG	38.98608096	-94.44576183	30	Aciera Site
ABAJ	39.03850855	-94.48724427	30	Aciera Site
Tower2	38.994581	-94.476738	80	Tower
ABAE	39.01637121	-94.48203459	30	Aciera Site
Tower3	39.029526	-94.437294	60	Tower
ABAC	39.00820306	-94.45174987	30	Aciera Site
ABAB	38.97200884	-94.45065667	30	Aciera Site
Tower1	39.003821	-94.468472	100	Tower



# WATER MTU FEATURES AND FUNCTIONALITY

- Hourly reads (configurable)
- Transmits to head-end four times per day (configurable)
- Time synchronized for system-wide snapshot
- On-demand readings
- Over-the-air firmware and configuration updates
- Stores 96 days of hourly reads
- AES 256 encryption: NIST compliant security
- Remote shutoff valve control
- Compatible with all major water meters
- Under or through-the-lid install
- Multiple industry-standard connectors
- 20-year battery life
- IP68 rated



Badger Meter

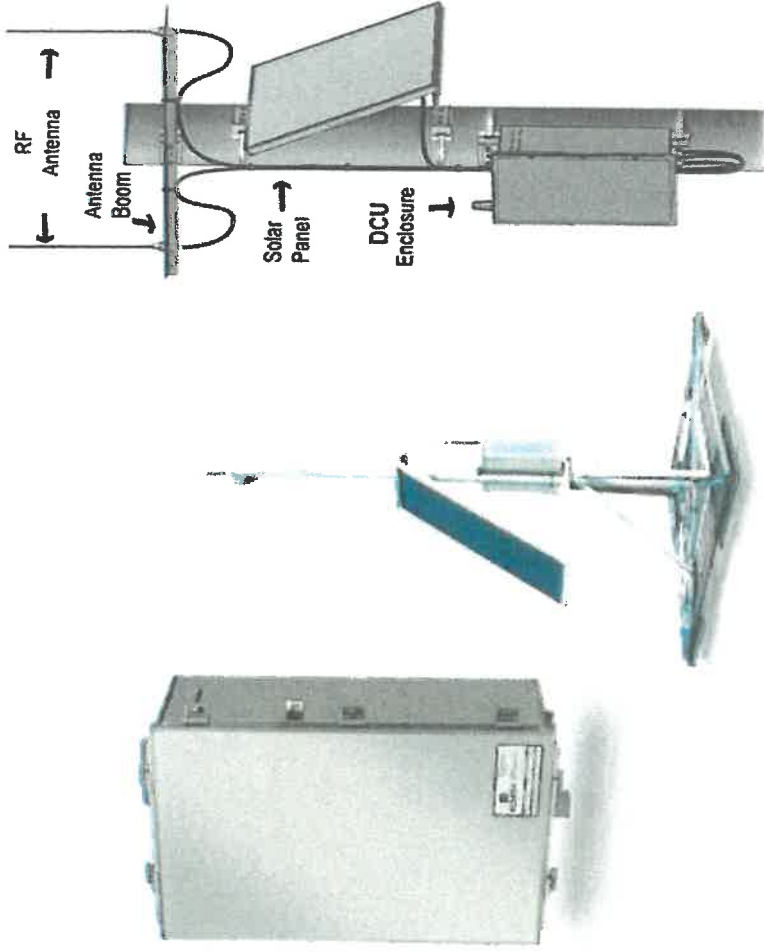


NEPTUNE  
TECHNOLOGY GROUP



# DATA COLLECTOR UNIT

- Solar or AC powered
- Cellular (LTE), fiber optic, Ethernet, Wi-Fi and Wi-MAX WAN backhaul options
- Minimum antenna height (30')
- Flexible installation options:
  - Roof
  - Water tank
  - Street light
  - Utility pole
- No repeaters required
- The redundancy designed into the network makes repeaters unnecessary





# **AMI Metering Asset Management & Maintenance Program:**

**Proposal with Cost Justification**



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## Project Equipment

### Equipment: Quantity

Aclara Technologies Network STAR® Data Collecting Units (DCU) & Ancillary Components	12
Aclara Technologies Model 3450 STAR® Single Port Endpoints for Water Meters	6,811
Software as a Service (SaaS) - Application Support Service	Included
Billing Interface	Included
Consumer Engagement	Included
Project Management w/Project Manager	Included
Annual Training	Included

### Meters

Water Meters 5/8" to 6" Sizes	6,811
Composite Pit Lids for Residential Meter Boxes	Included
Water Meter Installations (with GPS locating)	Included

# Cost Justification – Water Meters

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## Assumptions

Number of Water Meters	6,811	meters
Population Served	28,993	
Average consumption	40	gpcd

Water Rates	\$7.11	kgal
Sewer Rates	\$0.00	kgal
Age of Meters	12	years
Non-Revenue Water	9.2%	

Meter Reading Cost	\$3.00	per read
Number of Customer Service Calls	300	
Cost for Customer Service Call	\$65.00	per call

## Cost Savings

Meter Reading Cost	\$20,433	per month
Customer Service Calls	\$19,500	per month
<b>Total Cost Savings</b>	<b>\$39,933</b>	<b>per month</b>

## Revenue Enhancement - 5%

Water underbilling	\$12,302	per month
Sewer underbilling	\$0	per month
<b>Total Revenue Enhancement</b>	<b>\$12,302</b>	<b>per month</b>
<b>Annual Financial Benefit</b>	<b>\$626,820</b>	<b>Per Year</b>

## Firm Pricing\*

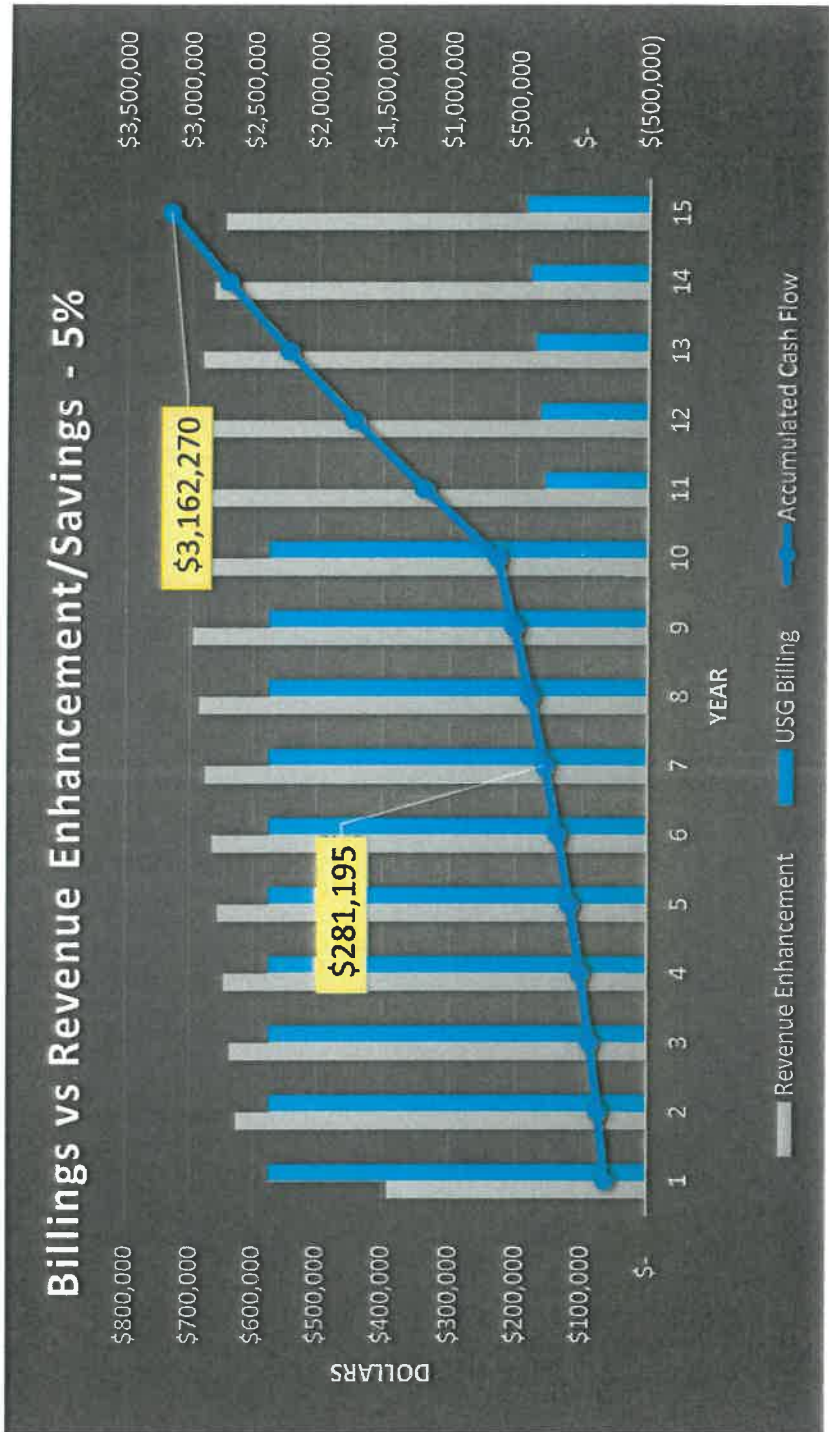
Annual Fee Year 1 (Paid in Full)	\$3,870,050
Annual Fee Year 1-7 (Spread)	Refer to GC Document
<b>Annual Fee Year 1-10 (Spread)</b>	<b>Refer to GC Document</b>
Annual Fee Year 1-15 (Spread)	Refer to GC Document
Maintenance Fee: Years 1-15	\$98,975

\*Municipal Lease  
 \*Firm Pricing  
 \*Subject to Mutual Standard Terms and Conditions and Annual Cost of Service  
 Proprietary and Confidential

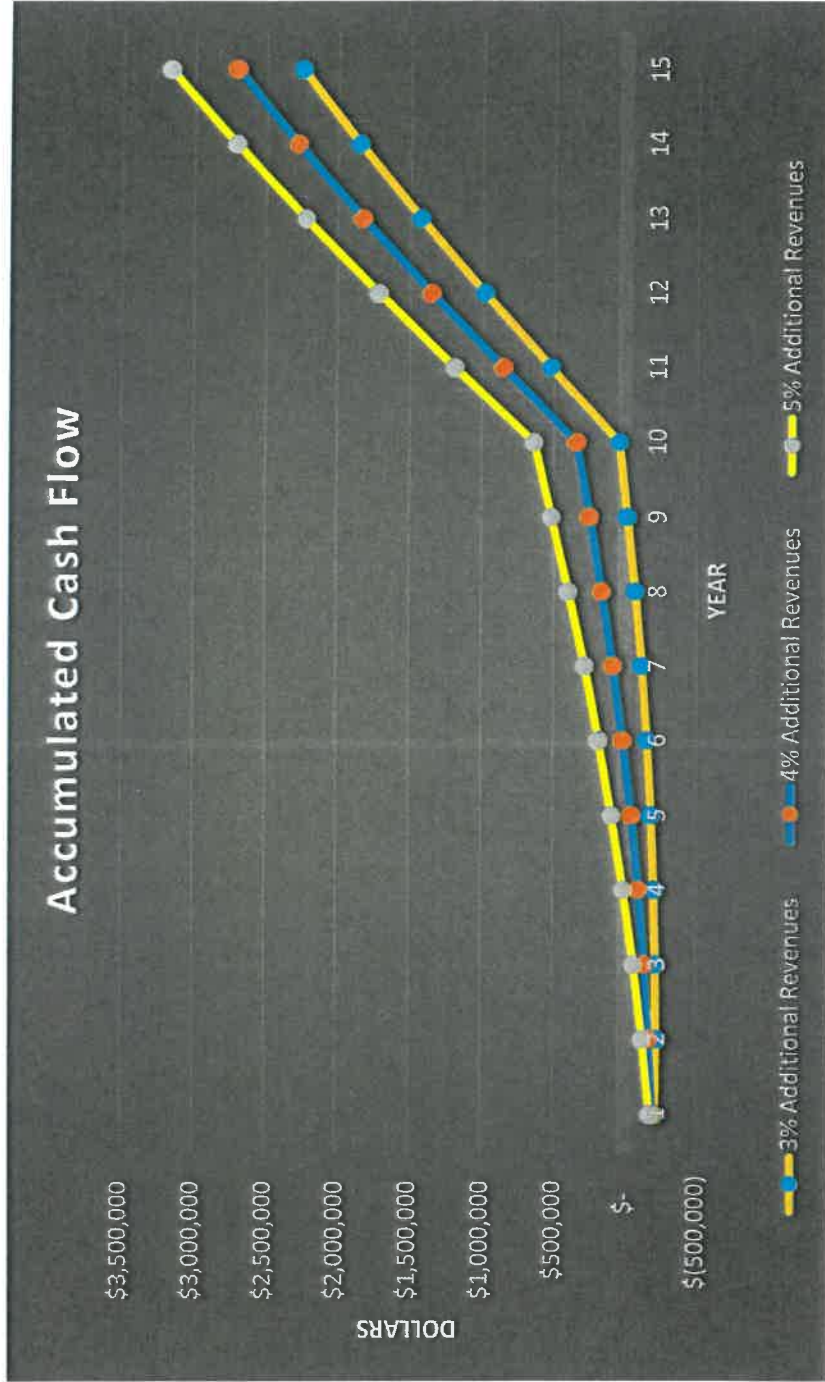




# Cost Justification



## Cost Justification





# AMI Metering Asset Management & Maintenance Program:

Asset Management with Maintenance Program



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## Operation Support & Maintenance What's Included?

Annual Support & Maintenance with Asset Management Program	
<b>INCLUDES:</b>	
Full Comprehensive Asset Management Program	Included
Preventative and Corrective Maintenance	Included
AMI System Monitoring Service	Included
Labor (Travel and Expenses) and Batteries	Included
DCU Backhaul Costs	Included
DCU Maintenance	Included
Hosting Fees (SaaS)	Included
Hosted Software License and Maintenance Fees	Included
Application Support	Included
Guaranteed AMI System Performance	Included
All Firmware Updates	Included
Manufacturers Guarantees	Included
Training	Included

# AMI Metering Asset Management & Maintenance Program:

Case Studies



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# References – Case Studies

## Case Study – Concordia, MO

Est: 6%; Actual: 12-18%

### CASE STUDY METERING SERVICES

**Project Summary**

**Customer:**  
City of Concordia, MO

**Type of Project:**  
Metering Maintenance Program - including installation of a new AMI system and new meters - Adora® AMI System with Sensus® water meters

**Date:** 2016

**Results:**

- Increased meter reading efficiency (100% reading)
- Increased revenue generated by more accurate readings and more efficient process
- Improved cash flow
- Improved Customer Service
- Increased availability of Utility Staff resources for other activities

**Solutions**

The innovative metering services program from SUEZ Water Services Solutions, which allows the AMI infrastructure costs to be spread over many years, helped the City of Concordia successfully submit the project to the Board of Aldermen. After reviewing the specifics of the project, the Board agreed that the new AMI system would yield considerable benefits and pay for itself quickly.



**City of Concordia, MO**

*"To be able to cost justify this type of expense in a small town is a very difficult procedure"*

*"Hearts in Harmony Since 1840" well describes the City of Concordia, MO. This small community is located between Kansas City and Columbia and offers residents a great place to live and a rural lifestyle to its 2340 residents. Concordia Lake supplies the surface water to the city.*

Small communities often find it a challenge to have funds on-hand for yearly maintenance and major capital expenditures without an emergency event taking place. Concordia was no different.

One of the major projects the City considered was replacing the aging meter population and a 15 year-old touch read system - which required a lot of labor-intensive maintenance - with a new Advanced Metering Infrastructure (AMI) system that would allow them to bill for water usage more accurately. The City had instead of using meter and resources to go out, bring back, and process data for the City treasurer to issue water bills.

"To be able to cost justify this type of expense in a small town is a very difficult procedure" says City Administrator - Dale Kussman. However, the innovative metering services program from SUEZ Water Services Solutions, which allows the AMI infrastructure costs to be spread over many years, helped the City of Concordia successfully submit the project to the Board of Aldermen. After reviewing the specifics of the project, the Board agreed that the new AMI system would yield considerable benefits and pay for itself quickly.



**More efficiency, increased revenue**

Not only do the newly installed AMI system and meters spare the Utility staff the laborious task of manually reading and collecting data from thousands of meters but they also provide much more accurate data as compared to the previous aging meters. The increased accuracy of the system has already allowed the Utility to realize significantly more revenue. The initial installation of the metering infrastructure was done by SUEZ, allowing Utility staff to focus their attention on other important projects. All future residences of the automated system will also be performed by SUEZ which should further increase labor efficiencies. "The ability to tap more than four employees - running a small community that is an award powerful statement in my opinion" says Dale Kussman.



**Better Customer Service**

The new AMI system provides near real-time usage data on all customers which allows the Utility to be more proactive, quickly alerting customers of potential water leaks for example. More accurate data also means less billing disputes and better customer service overall.

"Our Customer-Service has improved dramatically with the availability of hourly data on my given account at our fingertips, allowing us to communicate with our customers about any problem they are experiencing" confirms Dale Kussman.



**suez**

Utility Services Co., Inc.  
13700 Douglas Street, NE  
Atlanta, GA 30349  
Tel: 855.701.4333 | www.suezwater.com



# References – Case Studies

## Case Study – Greensboro, MD



**TOWN OF GREENSBORO, MD**

*"Greensboro was facing a challenge to financially support maintenance projects and invest in new ones"*



**Capturing more revenue**

Since their installation, the new and more accurate meters have allowed the Utility to capture more revenue. In addition, the new automated system has reduced significantly the time dedicated to other projects and billing which allows Utility staff to perform other important tasks. Moreover, the new system has allowed a monthly billing has also greatly improved the Utility cash flow.

The new AMI system and new meters and the fact that SUEZ Water Advanced Solutions is in charge of all future maintenance has freed up my team to perform other critical tasks. The labor efficiencies will provide a quick payback on our investment," says Utility Director David Kabler. With its Innovative Metering maintenance program - which allows the initial AMI infrastructure costs to be spread over time - our answer is a truly preventative maintenance of all equipment for the benefit of our customers. SUEZ Water Advanced Solutions is bringing AMI to small utilities, that couldn't afford to install or maintain AMI networks until now.



**Improved Customer Service**

The new AMI system, provides hourly data on any customer which helps the Utility be more proactive by pinpointing and quickly alerting customers of potential leaks. Thanks to the accurate data collected continuously and available online, the Utility can respond more diligently and efficiently to any customer inquiry or complaint. For example, the analysis of a customer utility bill over time helps identify recurrent patterns and allows the Utility to understand if and/or when a true discrepancy occurred, thus reducing billing disputes.



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**Improved Customer Service**

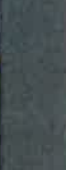
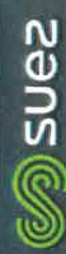
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Water Service Co., Inc.  
 1250 Reisterstown Rd., #1  
 Suite 1100, Reisterstown, PA  
 15086-0001  
 Tel: 412.576.6333 | www.utilityservice.com

Water Service Co., Inc.  
 1250 Reisterstown Rd., #1  
 Suite 1100, Reisterstown, PA  
 15086-0001  
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## Next Steps and Conclusion:

With the increase in non-revenue water projected for 2020, Suez (USCI) will:

- Replace Raytown Water Co. meters and deploy an AMI Metering system under the Suez Asset Management and Maintenance Program.
- With our financial partners minimize the impact by spreading the costs over 5 to 15 years (municipal lease).
- With our financial partners provide the option to delay billing for 12 months from date of contract. This will allow you to maximize the increased revenue from new water meters, improved customer service, meter reading operation benefits and savings from the AMI system.

Suez (USCI) has been a partner to Raytown Water Co. for many years.

We look forward to being your partner for many more.



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# **AMI Metering Asset Management: Enhance Revenues and Deliver Superior Customer Service for Raytown Water Co, MO**

## **Raytown Water Co Presentation with Pricing Proposal**

Tom Stechmann  
Water System Consultant

December 10th, 2020



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