

# **Advanced Metering Infrastructure (AMI) Is It Now Within Reach for Small to Mid-Sized Utilities?**

**PNWS-AWWA**

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**Advanced Solutions**

# Objectives

- Better understand Advanced Metering Infrastructure (AMI) and the advantages it can provide over other technologies.
- Learn about the new approaches small to medium sized utilities are using to justify, implement and manage AMI while overcoming the challenges.

# Agenda

- Introduction
- Current Status
- AMR vs AMI
- Benefits of AMI
- Challenges for Water Utilities to Implement AMI
- A New Approach Moving Forward
- Is AMI Within Reach?

# Advanced Solutions

## N.A Leader in Asset Management Solutions



**600+**  
Employees  
(Full Time Engineering Dept.)



Founded in USA  
half a century ago  
(Based in Atlanta, GA)



**4,000+** municipal &  
industrial customers



**8,000+** water assets  
managed



**24** service centers  
nationwide.  
30+ NACE Inspectors



**50** community-based  
water system  
consultants

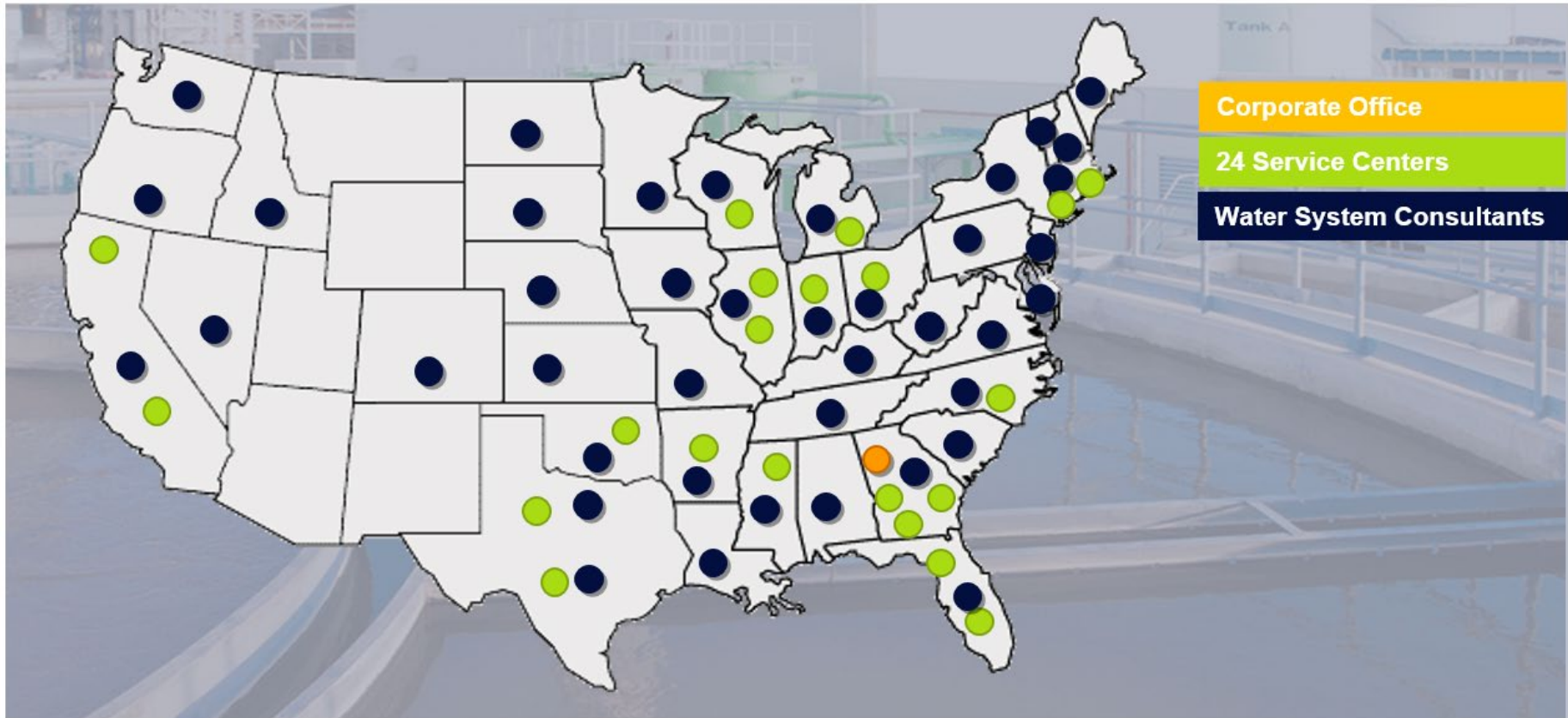


World-class  
innovative  
technologies



Technological and  
financial strength from  
Global leader

# SUEZ Advanced Solutions Experienced Problem Solvers Nationwide



# Current Status

## Water Utilities Face Many Challenges

- Managing Capital Costs
- Reducing Operating Costs
- Non-Revenue Water
- Water Scarcity/Conservation
- Customer Service
- Aging Infrastructure
- Lack of Resources
- Cybersecurity
- Employee Safety
- Media – Social / Televised

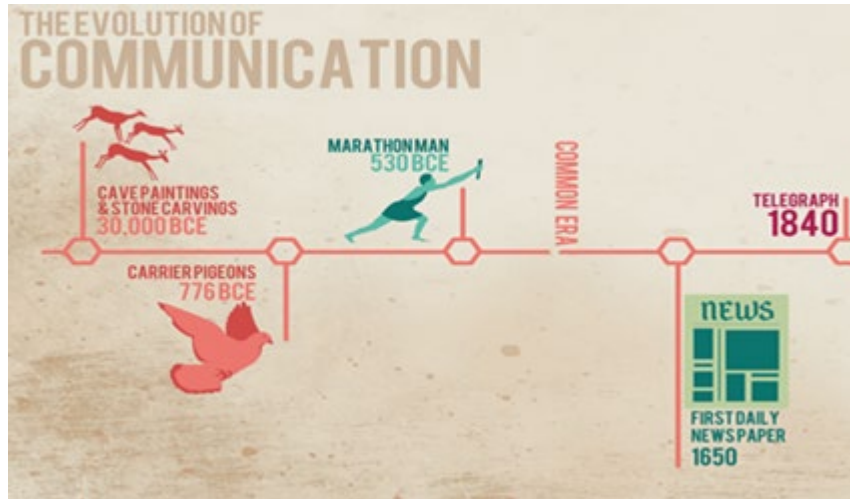


# Current Status

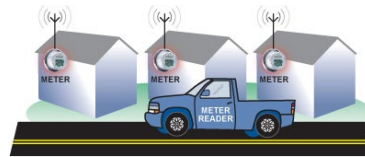
## Smart Technologies Can Help

- Mature Technologies
  - Technological risks are minimized
    - ✓ Solutions have proven track records
    - ✓ Millions of meters being read daily
- AMI and AMR cost gap is closer
  - AMI is now within reach.
  - AMI Installations continue to grow
- Value being realized by early adopters

# Meter Reading Evolution



Manual Reading



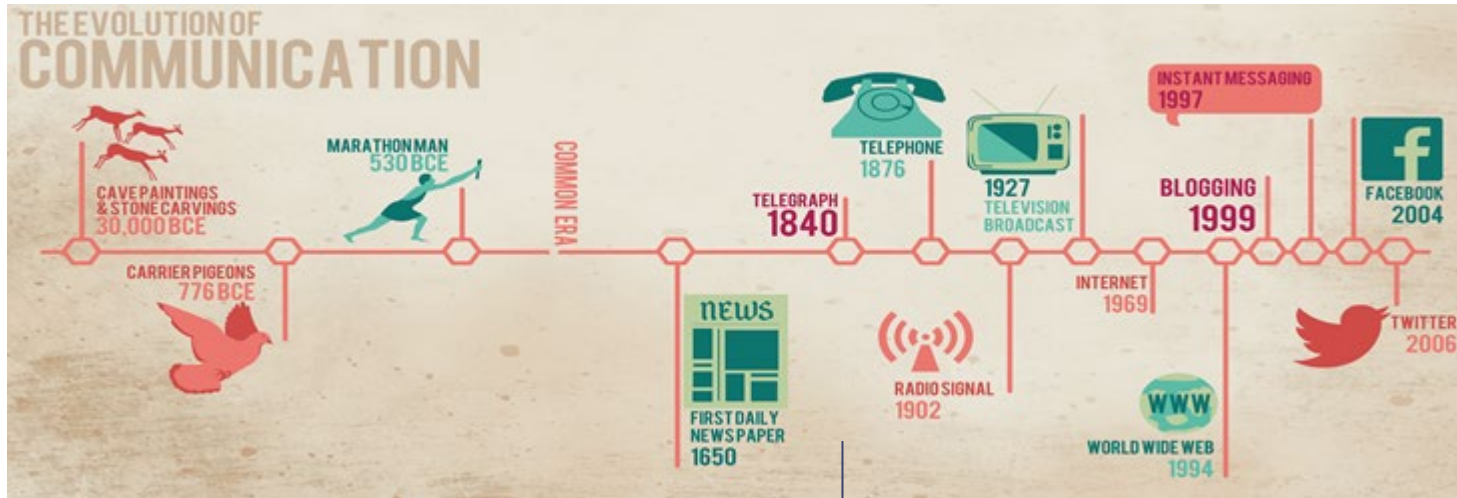
AMR



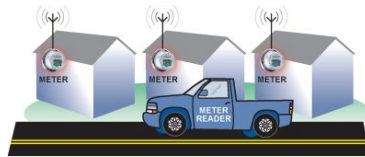
Monthly reading **reactive**



# Meter Reading Evolution



Manual Reading



AMR



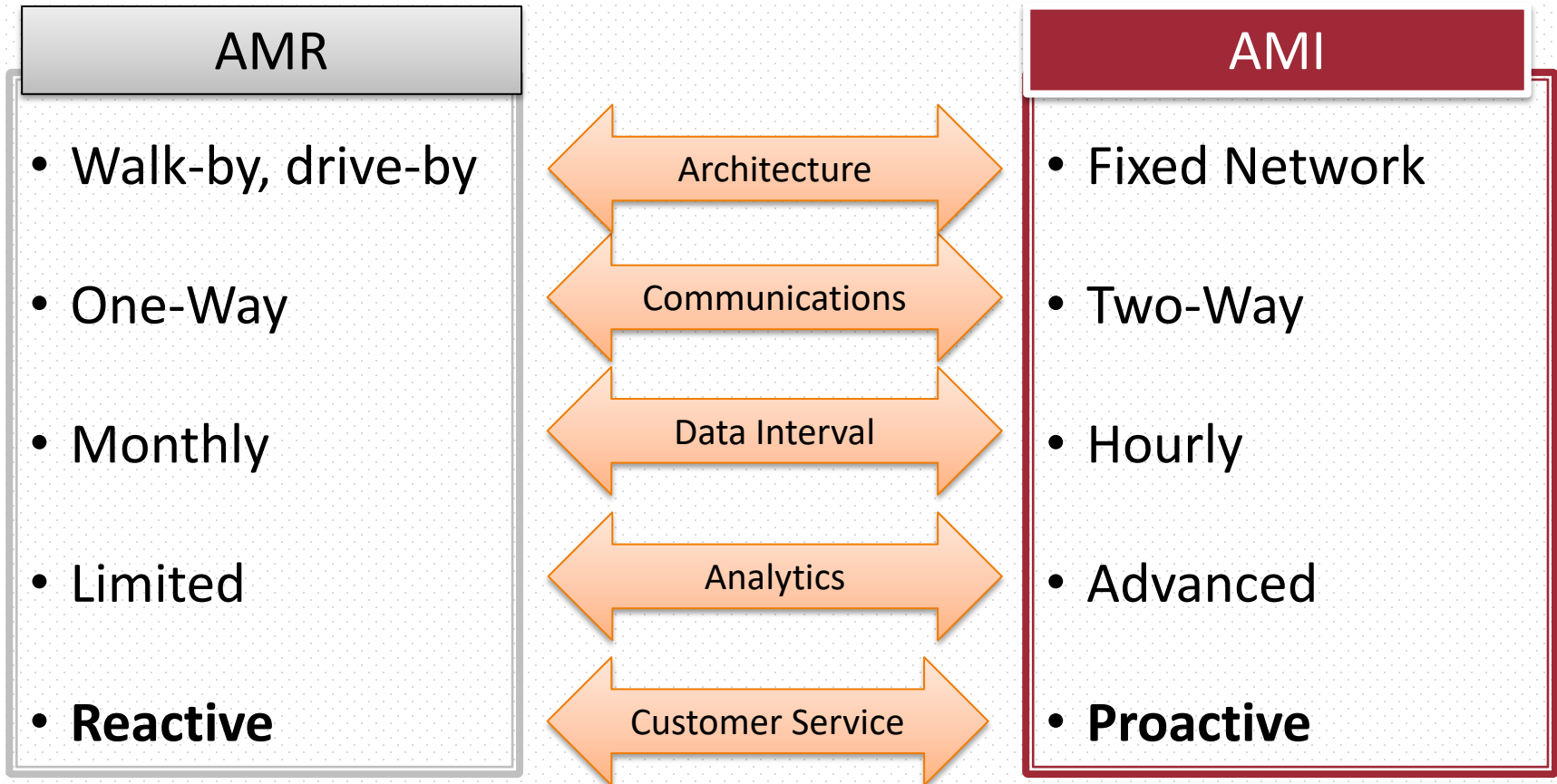
AMI



Monthly reading **reactive**

Online hourly reading **proactive**

# AMR vs AMI



# Today's Solution - AMI



Meter



Endpoint



Meter

Water Meter with an AMI transmitter



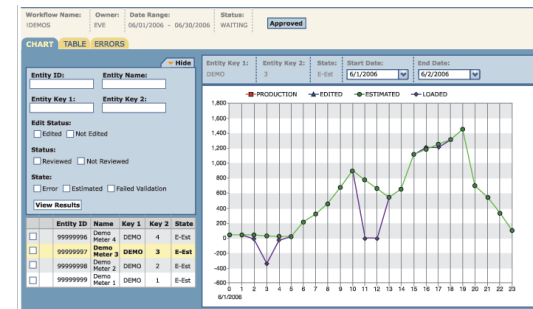
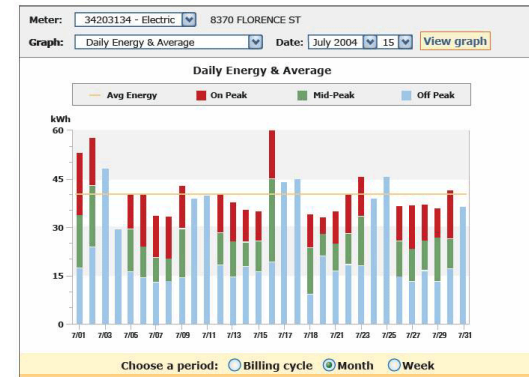
AMI Data Collector



Meter Data Management System



Utility Company



# Benefits of AMI

- **Revenue Optimization**

- Reduce Billing Adjustments
- Theft Detection
- Customized Rates
- Custom Billing Dates



- **Cash Flow Management**

- Revenue Forecasting
- Improved Rate Design

# Benefits of AMI

## AMI can release you from:

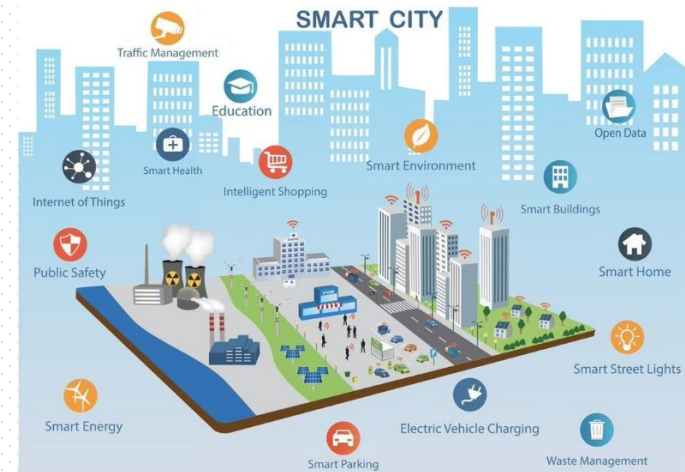
- Meter readings and investigations
- Technical expertise to handle new radios, readers, download tools and billing interface software.
- Manual processes to handle data
- Trips, reading routes, and re-reads



# Benefits of AMI

- **Smart City / Utility Foundation**

- Remote Disconnect Devices
- Leak Detection
- Pressure Monitoring
- Sanitary Sewer Overflow
- Street Lights
- Smart Parking
- Smart Home
- IoT



# Benefits of AMI

## Cost Savings:

- Meter Reading Cost Savings
  - Labor
  - Vehicle
  - Miscellaneous Costs
- Customer Service Cost Savings
  - Reduction in calls to call center
  - Fewer metering field visits
  - Reduced billing costs



# Benefits of AMI

## Superior Customer Service

- Provide detailed consumption data to end-user
- Proactive Customer Leak Notification
- High Bill Investigations
  - Resolve most customer inquiries with first call
- Flexible billings
- Move In/Outs





# Benefits of AMI

## Operational Tools

- Water Accountability
- Conservation Programs
- Meter Right Sizing
- Define Optimal Time in Service or Cumulative registration



# Challenges for Water Utilities to Implement AMI

- **Lack of Funds**
- **Lack of Internal Resources and Expertise: AMI can be an overwhelming project**
  - Project Management Capabilities
  - IT Expertise
- **Overcoming Risks**
  - Financial stability of vendors
  - Technological Obsolescence
- **Who Will Take Care of the System?**

# How To Handle: Lack of Funds

## Utilities can benefit from a full implementation now and pay over time

- Many utilities need to replace old and inaccurate water meters
- Payback can be funded by
  - Reductions in meter reading/customer service costs
  - Improved meter accuracy
- Suez offers options to Spread Costs Over Time
  - Delay of first payment for 12 months or
  - Until the project is complete
- Third Party Financing Options

# How To Handle: Lack of Expertise

## Outsource Project Management

- **Quicker Deployment**
  - Months vs Years
- **Single Source of Responsibility & Accountability**
  - Eliminate Finger Pointing and Risk
  - Experience Counts

# How To Handle: Lack of IT Resources

## Software as a Service (IT Cloud)

- Reliable access to data
- Eliminates need of internal IT resources
- Includes swift implementation and integration with CIS and other systems
- Assures disaster recovery is well managed

# How To Handle: Risks

## **AMI vendors are more financially stable**

- Industry has continued to consolidate

## **Technological risks are minimized**

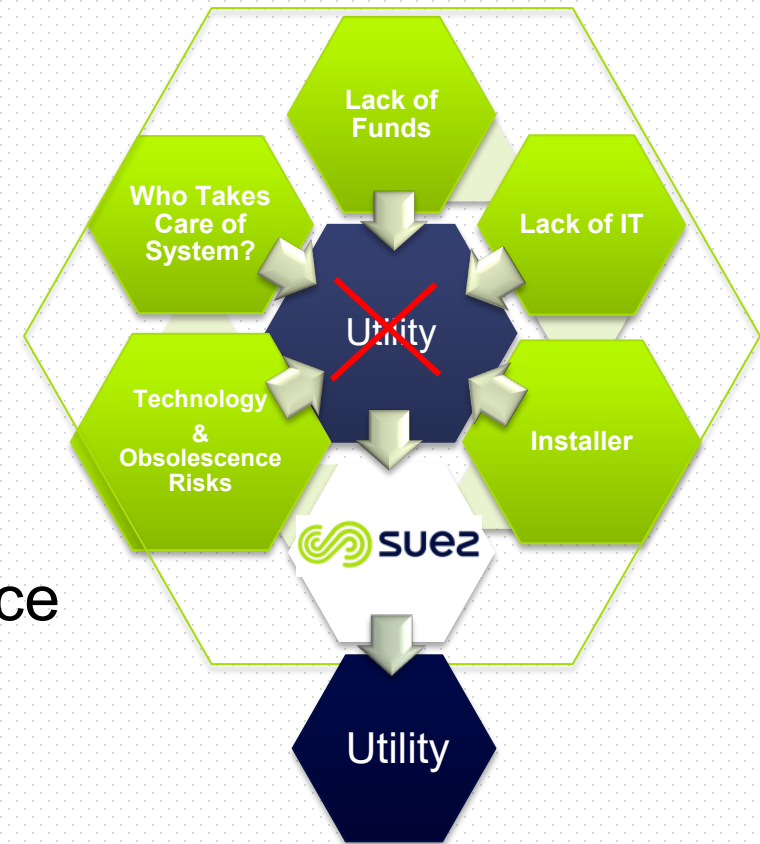
- Solutions have proven track records



# How to Handle: Taking Care of The System

## Solution:

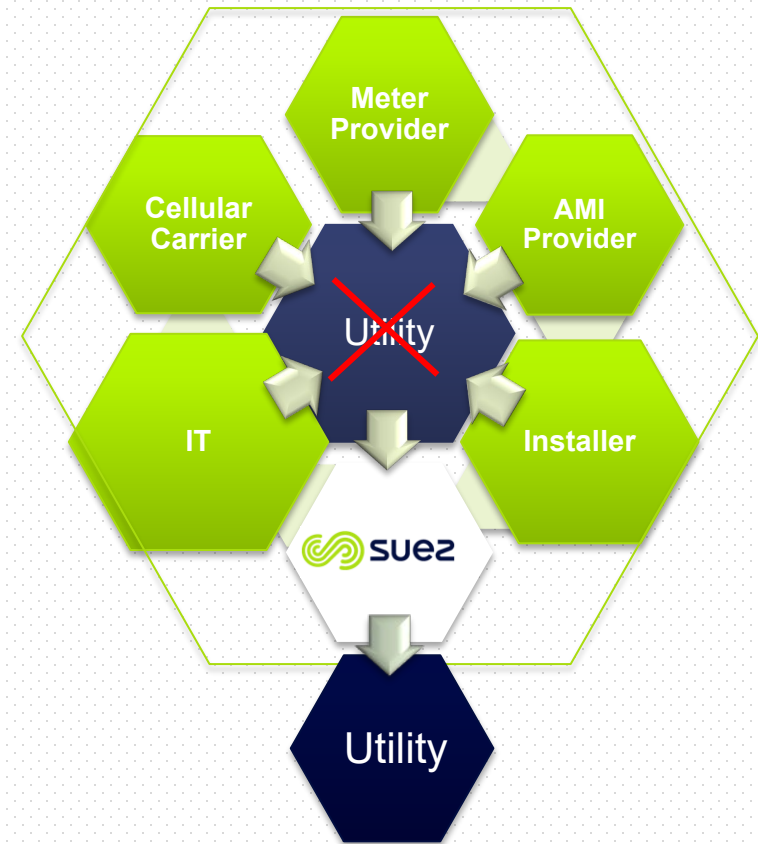
- Full Comprehensive Asset Management Program
- Preventive and Corrective Maintenance
- Project Management with SaaS Hosted Services & IT support
- Minimize Technology & Obsolescence Risks
- Single Source of Responsibility and Accountability
- Eliminate the Finger Pointing



# AMI - Is Now Within Reach!

## Summary

- Asset Management & Turnkey Solutions.
- AMI Implementation can be self-funded or 100% financed.
- Equipment reliability & cost risks have been reduced minimizing Technology and Vendor Risks.
- Outsourced project/management responsibility and software implementation simplifies the deployment.

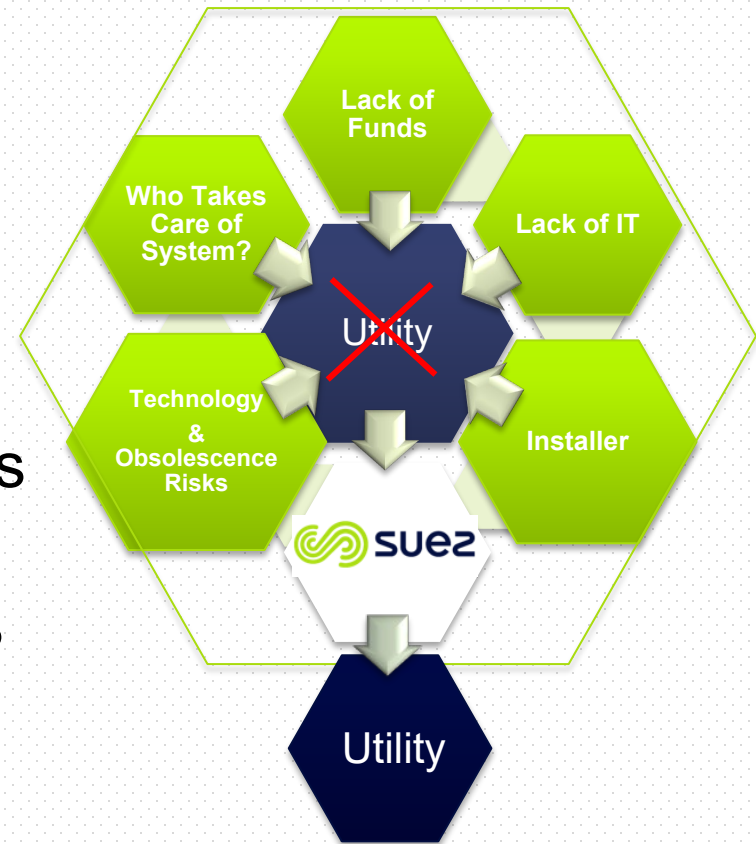




# Solution - Asset Management w/Maintenance

## New Approach For:

- Lack of Funds
- Lack of Internal Resources & Expertise
- Technology and Obsolescence Risks
- Financial Stability of Vendor Risks
- Who Will Take Care of The System?



# The Asset Maintenance Program Difference



**THE BEST MODEL**  
One point of contact and takes 100% responsibility. The right solution, *simplified*.

**QUESTIONS?**

# FOR MORE INFORMATION

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