METERING SOLUTIONS

ASCE Winter Meeting

February 23rd, 2022

Alabama Power

Communication & Measurement in Real Time

WHAT IS AMI?

Advanced metering infrastructure (AMI) is an integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers

ALTERNATIVES?

Automated Meter Reading (AMR)

A form of communication technology that water utilities use to collect water consumption and status data from water meters. AMR systems can be either walk-by or drive-by

Manual Meter Reading

Each meter is visually inspected, and that data is manually entered

AMI Benefits

8,760 Meter Reads Annually

Increased Employee Safety

Improved Operational Efficiency

Increased Billing Accuracy

Access to Real Time Data & Analytics

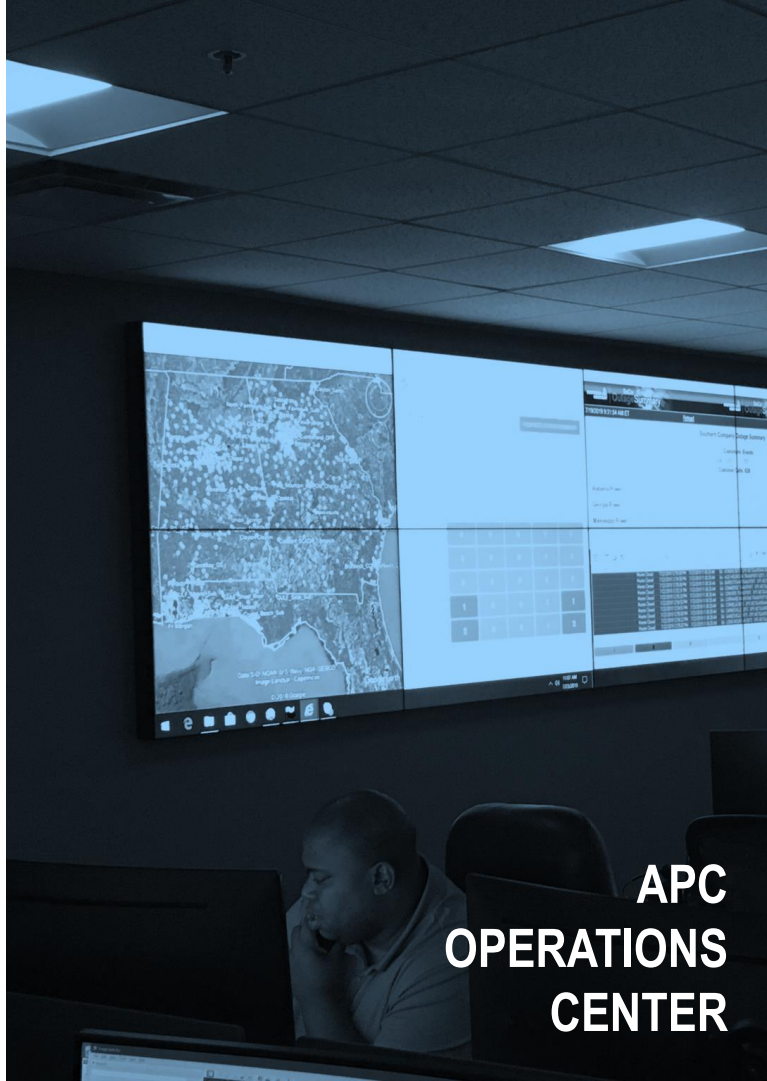
Resource Allocation Opportunity

Proactive Not Reactive System

Increased Customer Service

FlexNet Infrastructure Operations

- 24 x 7 monitoring of system health and performance
- Field operations team members located across APC territory
- APC responsible for the O&M of the Base Stations
- Emergency response during storm events
- 72-hour battery backup power at base stations



FlexNet Network

Customer Base

1.53 Million devices on the network

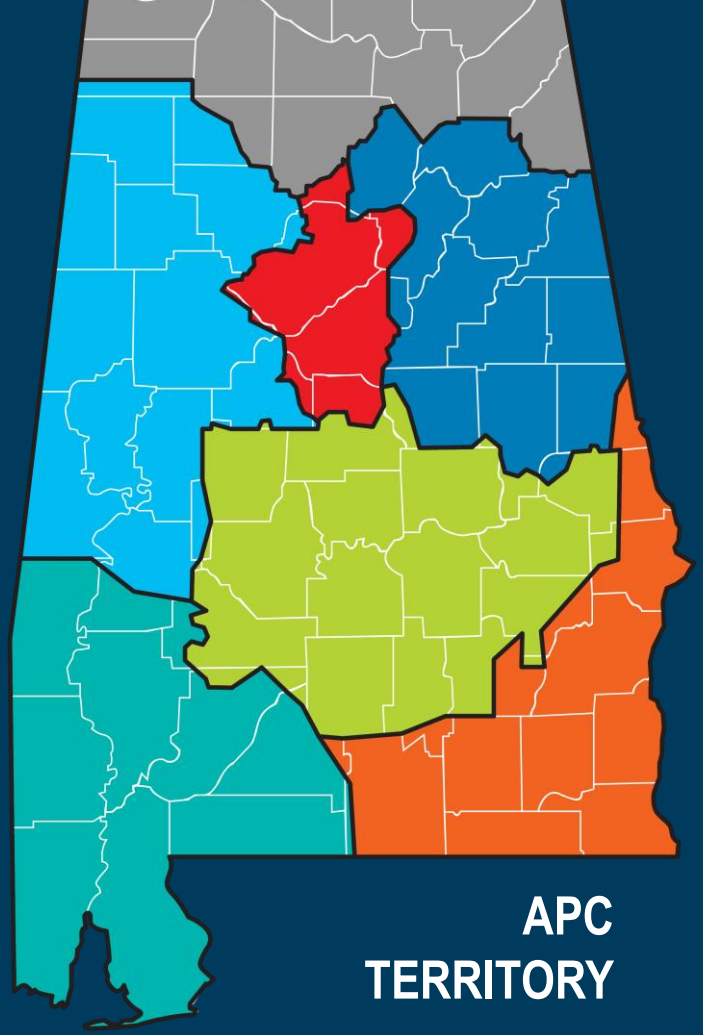
Service Territory

- Early Adopter
- Advanced Applications
  - Outage and Restoration
  - Voltage Monitoring
  - Customer Phase Detection
  - Capacitor Bank Monitoring
- Other Applications
  - Demand Response
  - Lighting

600+ Base Stations and Growing

99.90% Read Success Rate

OTA Firmware Grades | OT Device Configurations



FlexNet Network

An APC-managed service for utilities that will offer remote meter reading capabilities to water, gas and electric systems in a secure environment using the AMI network.

By leveraging our AMI infrastructure, we can increase speed to market and lower the overall network cost to our customers

UTILITY SERVICES

Advanced Metering Infrastructure

Common Pitfalls with AMI Meter Reading

Significant capital investment

Capital required to upgrade meter and network infrastructure

System integration issues

Billing errors from improper meter registration/installation

Lack of industrywide standards for AMI systems

Components from different manufacturers may be incompatible.

Partnering with Industry Leaders

Alabama Power

Network infrastructure provider
AMI Network maintenance
Potential for capital provider

Sensus

Manufacturer of product
Software provider
Data hosting

Core & Main
ECCO Equipment Controls Company

Distributor of product
Expert product knowledge
Billing integration support

Utility Solutions of America, Inc

Sensus certified installer
Warranty assurance option
Monitor of analytics

AVR
An i3 Verticals Company

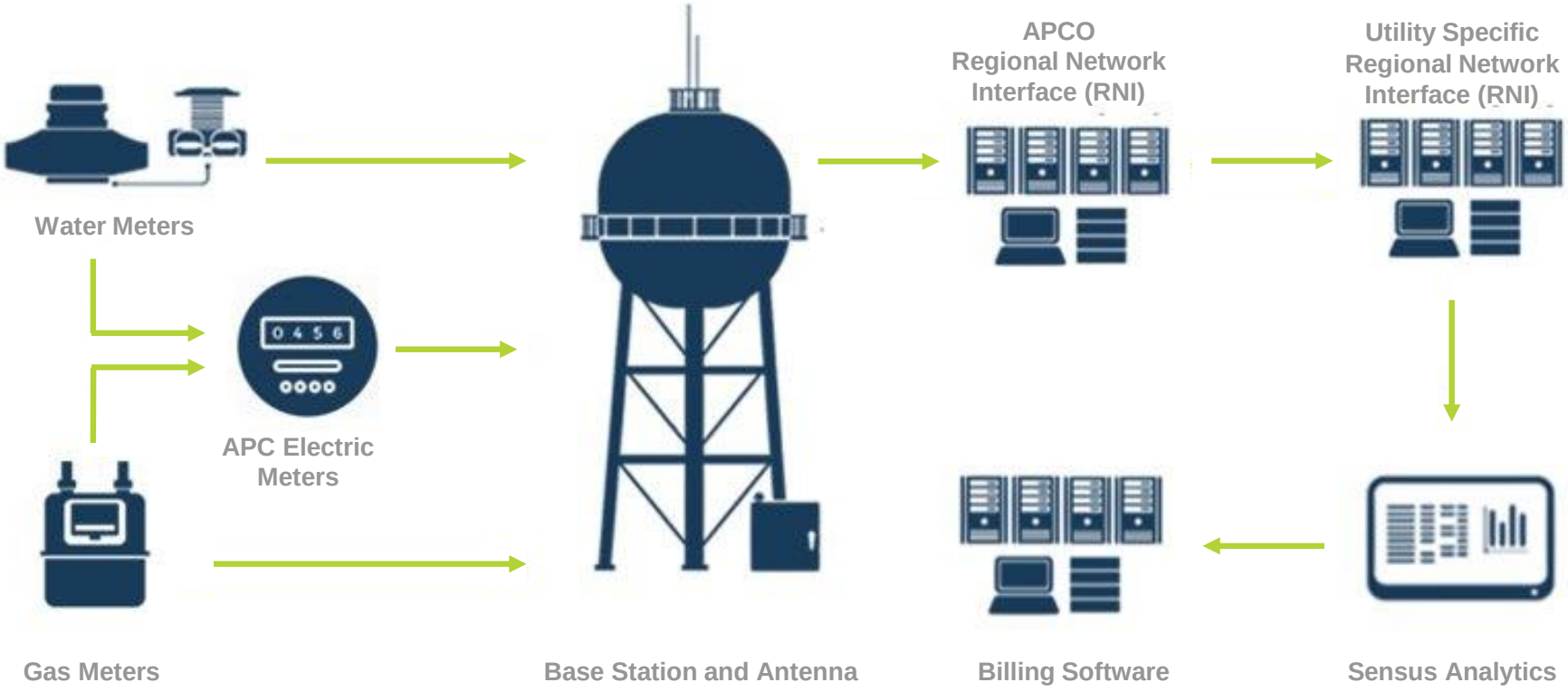
Utility billing software
Work order management
Back-office solutions

Ownership Options

With either option APC will work closely with the customer to ensure the meters selected are compatible with the APC transmitter

OPTION ONE Meter Read Only	OPTION TWO Meter Read & Lease
AMI Standard – Sensus RNI meter reading with analytics + Customer utilizes existing meters or purchases meters / transmitters 5, 10 or 15-year term	**AMI Standard** – Sensus RNI meter reading with analytics + Customer leases meters / transmitters from APC 15-year term

AMI Standard



SENSUS Analytics

Long-term data storage (3+ years)

- Consumption intervals, alarms and voltage
- Data integration (GIS, Asset Management, Billing)
- Ease of exporting

Robust reporting and visualization of data elements

Modular and flexible design

Data access, insight and analytics

Functionality can be used in lieu of MDM

Partnership Benefits with APC

FINANCIAL

Known monthly expense
Phased approach
Lease Option

RESOURCES

APC monitors and maintains AMI system
24/7 Emergency response
Utility can focus on other parts of the business

INTANGIBLES

Reduced infrastructure investment
Redundant electric meter “buddy” system
Peace of mind

Next Steps

CUSTOMER	ALABAMA POWER
• Provide route file • Decision to purchase or lease meters/registers • Full meter install or phase-in • Meter quantities by size class • Install new meters	• Propagation study • Prepare pricing proposal • Discuss estimate and select meters (If replacing) • Sync meters with APC network • Provide billing file & analytics

METERING SOLUTIONS

From Alabama Power

Supporting Your Success

Pre-deployment planning
Endpoint installation
System integration
Data & analytics training
Network deployment
On-going support

Questions?

- Most robust and reliable AMI network in Alabama
- Increase speed to market
- Lower network cost, known monthly expense
- APC 100% responsible for system O&M
- Trusted partner