

MLGW's Smart Journey to Improve Customer Satisfaction

MLGW Board of Commissioners 5/1/2015



MLGW's Journey to Smart Meters

- 15+ years of researching advanced meter technology, applicability to MLGW operations and customer benefits
- 1,000-meter Smart Grid Demo, 2010-12
- 60,000-meter project, 2013 (phase 1)
- Full smart meter deployment by 2020 (phase 2)



- 1,000 electric smart meters with cellular communications
- Residential volunteers only
- Demonstrated: technology, accuracy, data integration with MLGW systems, customer data presentation, customer awareness and conservation, Time-of-Use pilot, In Home Display pilot
- Results:
 - 2.3% reduction in electricity use for average participant (compared to baseline)
 - 5.6% reduction in electricity use for average TOU rate participant
 - 95% would recommend smart meters to a friend



Phase 1: 60,000 meters

- Electric, gas and water smart meters installed at residential customer sites in zones across Shelby County
- Telecommunications wireless network installed to support smart meters in phase 1 zones
- Excellent daily read rates



Phase 1: Early Success Stories

Electricity

- Tamper alerts have resulted in significant drop in meter tampering and theft of utilities
- Voltage alerts have notified MLGW of emerging issues at customer sites before customers are aware

Water leaks

 Smart meters have identified water leaks on customer-side of meter at approx one-third of sites, enabling customer notification/awareness



Smart Meter Vision

- Deliver the operational and customer benefits of smart meter technology to all MLGW customers
 - Integrated outage management
 - Reduced labor and transportation costs
 - Improved safety and security
 - Virtually eliminate estimated readings
 - Improved service capabilities (connections, leak detection)
 - Voluntary dynamic rate and billing options (Time-of-Use, PrePay)
 - Increased customer awareness and conservation
 - Customer savings
 - Future applications (automated switches)



Additional Customer Benefits

- Reduced fees
 - Lower fees for utility service connection
 - No fee for electric service reconnection
- Faster service
 - 24/7 electric service reconnection (coming 2016)
- Pre-Pay option
 - No deposits
 - No late fees
 - No electric reconnect fee
 - 24/7 payment and service reconnection
 - Pay off existing account's balance over time while maintaining service connection (debt recovery)

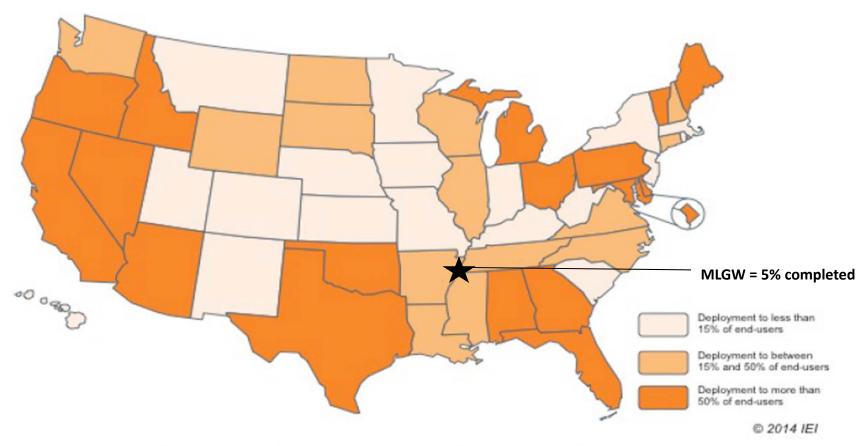


Industry Facts

- JD Power survey results show that customers with smart meters report higher satisfaction with their utilities
 - Residential: 43 points higher
 - Business: 85 points higher
 - Customers who are aware of their utilities' smart meter plans also report higher satisfaction
- The Edison Foundation reports more than 50 million electric smart meters installed in the U.S., as of July 2014.
 - approx 43% of U.S. households already have smart meters



Smart Meter Deployments by State



Note: Figure 2 shows the extent of smart meter deployments by state by 2015 that are either completed, underway, or planned. This map does not include automatic meter reading (AMR) installations.

Source: The Edison Foundation, Institute for Electric Innovation, September 2014



High Level Contract Overview

Vendor Selection

- Request for Proposals (RFP) issued
- Five proposals received
- Three vendors made presentations
- Elster Solutions selected based on scope of work, experience and cost
- Approx \$240 million contract, including \$12 million in contingency
 - 26% of annual capital expenditures budget

Major Milestones

- Meter delivery beginning October, 2015
- All telecom infrastructure installed by 8/31/2016
- Fully operational by 12/31/2020; averaging 50,000 meters installed per quarter



Most Likely Savings Scenario

	Annual Savings	Notes/Assumptions
MLGW OPERATIONAL SAVINGS		
Labor and benefits	\$14 million	175 positions eliminated through attrition
Meter exchange program	\$10 million	MLGW can eliminate annual capital budget for replacing meters due to age
Utility theft	\$ 3 million	11,000 known cases annually; actual theft is probably double the known cases
System losses	\$ 2 million	MLGW can reduce overall E, G, W system losses by 0.2%
Net write-offs	\$ 2 million	MLGW can reduce net write-offs by 18%
Total MLGW Operational Savings	\$31 million	
CUSTOMER RESPONSE SAVINGS		
Customer Savings (Energy efficiency/conservation)	\$16 million	Using demonstration results, customers can reduce consumption by average 2%
TVA to MLGW to Customer Savings (Load shifting)	\$ 4 million	By shifting some usage to off-peak hours, customers can reduce MLGW wholesale demand charges by 1.7%
Total Customer Response Savings	\$20 million	
TOTAL SAVINGS, ANNUAL	\$51 million	Annual savings from both MLGW actions and customer response activities



Smart Meter 2020 Vision

- Do what is in the best interest of MLGW's customers as a whole
 - Lower the cost of utilities to MLGW customers
 - Enhance the delivery and maintenance of MLGW services
 - Offer more options to meet customers' varying needs
 - Reduce our community's carbon footprint
- Smart meters will help us on this journey