



Advanced Metering Infrastructure

What's New and Next for Austin Energy's AMI Network

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History and Current State



Network Optimization



More than a Meter



Visibility & Awareness During Outages



Questions

History of Advanced Metering Infrastructure

1-Way AMR

2001

Austin Energy deploys ~100k one-way communicating Automated Meter Reading (AMR) meters

1-Way AMR 2-Way AMI

2006

Austin Energy transitions to deploying a blended one-way and two-way communicating network

2-Way Simple AMI

2015

Austin Energy sunsets one-way AMR technology, transitions to a full “simple” two-way communicating network – Advanced Metering Infrastructure

2-Way Advanced AMI

2019

Austin Energy completes its transition to a full “advanced” two-way communicating network

TODAY

Austin Energy operates one of the highest performing AMI networks in the country.

- Network is radio frequency mesh
- Managed service – Austin-based L+G program office maintains and operates the field network and the back-office control system
- 10-year agreement: 2024-2034
- Performance-based contract
- Industry leading service level agreement and performance

Note: Meters purchased via a separate contract



590,000+

Electric Utility Meters

1,500+

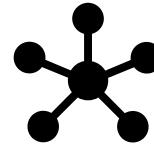
AMI field network
devices

Program Enhancements



Service Level Agreements & Key Performance Indicators

Network centric performance measure: (5 "hop" average network) impacts all-around performance rather than read delivery



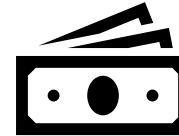
Future Proof

New network equipment is ready to support a next generation Internet Protocol (IP) Mesh based communication technology



Redundancy

Lesson learned from winter storms: build a redundant meter network with increased density offering tier-one, blue-sky-day performance and protection against mass-scale circuit outages



Cost Reduction

10-year partnership provides a reduction in per read pricing, all while securing stricter performance measures and an enhanced, redundant, future-proof network

Network Optimization

September 2025 — March 2026

- Doubled the density of and optimized the Advance Metering Infrastructure network
- Upgraded 915 routers during the project



Gateways

Radio frequency mesh information hubs that act as the first – and last – point of data delivery between the utility and the field network

57 → **205**

Sept. 2025

March 2026



Routers

Network repeaters that relay data packets across the wireless mesh network between the meter and the gateway

1273 → **1385**

Sept. 2025

March 2026

More than a Meter

AMI meters are health monitoring devices for the distribution system, capable of recording hundreds of alarms, events, flags and readings

AMI Meters Provide

- Real-time outage and restoration information
- Two-way command capabilities
 - Remote service switch
 - On-demand reads
 - Remote meter reprogramming (over the air)
- Tampering alerts
- Power quality monitoring
- Instantaneous voltage readings
- Interval data collection

Beyond the Bill

Austin Energy merges
AMI data in a variety
of operations and
customer supporting
functions

Leveraging AMI Data in Grid Analytics

- Reliability metrics calculation
- Resiliency work prioritization
- Bellwether metering / instantaneous voltage information
- Asset loading / overloading analysis
- **Outage awareness and storm response**

Internal Outage Awareness Tools

Austin Energy is leveraging advanced metering data and grid analytics to enhance outage awareness and storm response activities



Nested Outages

Using mass meter ping commands to identify nested outages — pockets of unrestored customers due to a secondary outage after primary outage restoration



Critical Water Infrastructure

Using a storm-activated email alert and mapping solution to identify Austin Water's critical infrastructure power status in near real time



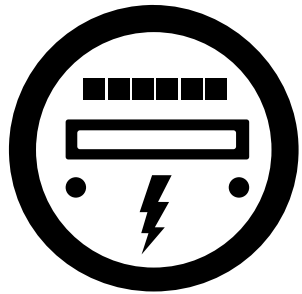
Medically Vulnerable Registry

Identifying and mapping MVR customers affected by outages allows the Customer Assistance Program team to ensure MVR customers' needs are a focus during storm response

Piloting a Blinks Report

Can we predict sustained outages before they occur?

AMI Diagnostic Data

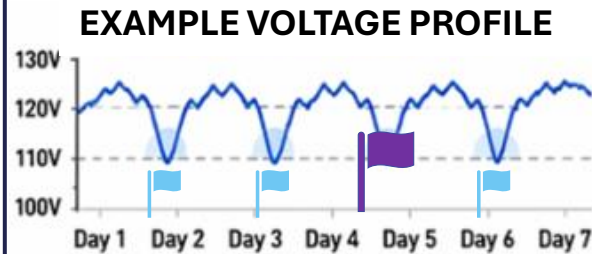


VOLTAGE SAG

MOMENTARY OUTAGE

AMI Meter detects a voltage sag or a momentary outage and logs it

Predictive Insights



SUSTAINED OUTAGE RISK ELEVATED

Analytics model identifies patterns and calculates outage risks that could lead to longer, costly outages

Crew Dispatched



Austin Energy crew dispatched to investigate and fix issue in the field

Sustained Outage Avoided



Crew finds tree limbs encroaching on power line and trims tree to avoid a sustained outage



**Customer
Driven.**

**Community
Focused.**

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