

Austin Energy's Strategic Plan and Monthly Performance Dashboard: Grid Modernization

October 2017

Austin Energy's Strategic Goals

Financial Health: Long-term financial resiliency that ensures cost recovery, provides market competitiveness, delivers operational excellence and creates value for customers and the Austin community

Customer Collaboration: New heights in customer satisfaction through increased collaboration, varied and high quality services, programs, and delivery methods and competitive pricing that strengthen customer loyalty

Environment: Minimize environmental footprint throughout Austin Energy's value chain

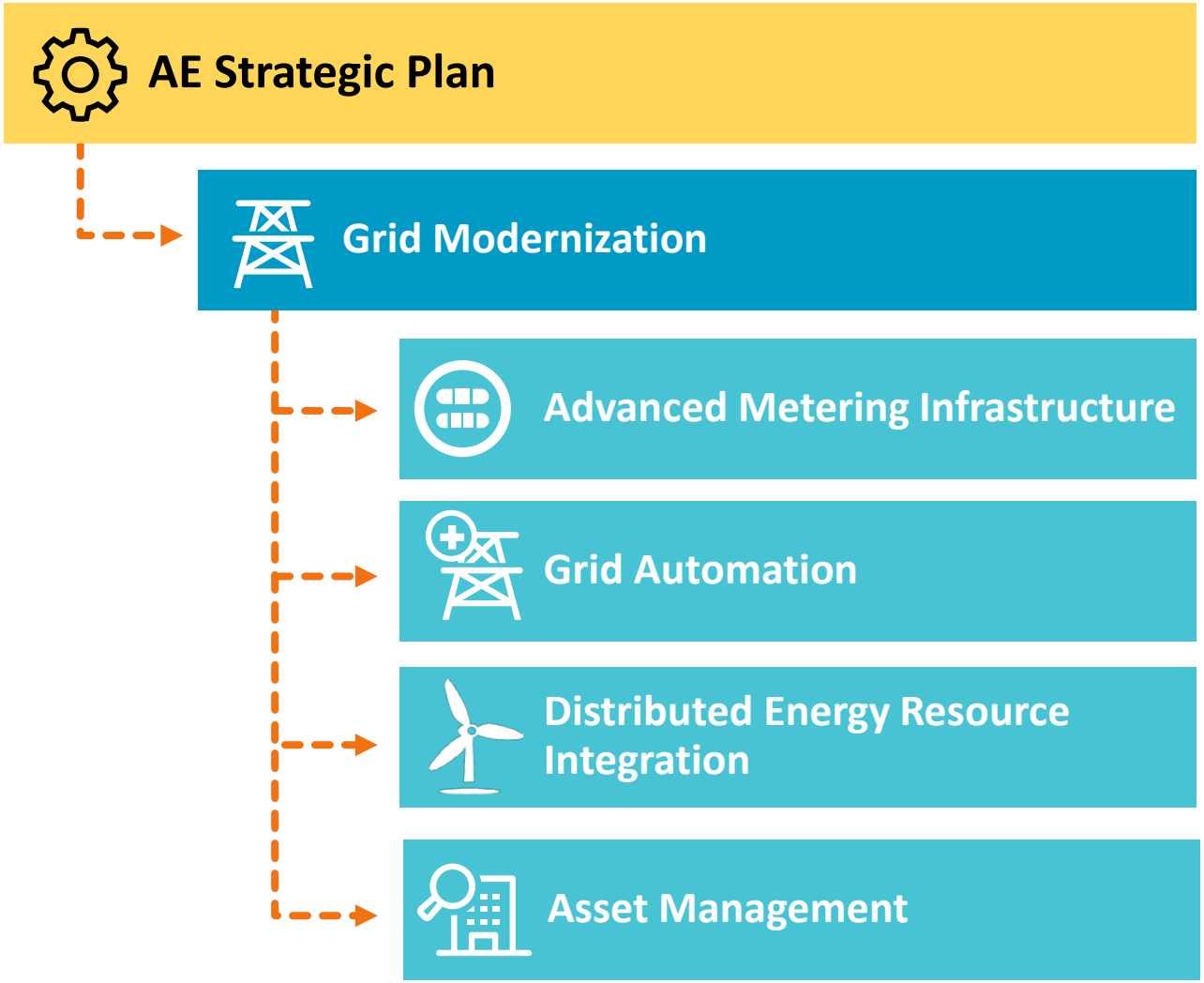
Employee Engagement: Employees are safe, healthy and engaged, and equipped with tools and training to effectively perform their work

Business Excellence: Best Managed Utility culture where customer needs are thoroughly and efficiently achieved through optimal use of resources

Grid Modernization: Innovative two-way grid utilizing customer and company infrastructure to deliver superior reliability and customer experience at the lowest reasonable cost

IMAGINEAUSTIN
Vibrant. Livable. Connected.

Strategic Plan and Grid Modernization

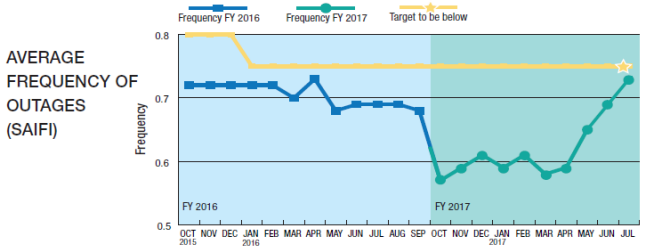


Grid Modernization

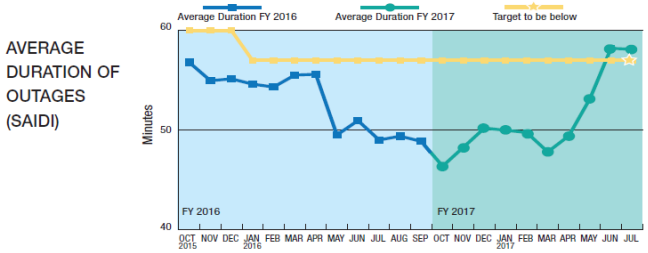
- **Goal Statement:** Innovative two-way grid utilizing customer and company infrastructure to deliver superior reliability and customer experience at the lowest reasonable cost
- **Goal Measure:** Achieve top decile transmission and distribution (T&D) reliability indices (SATLPI, SAIDI, SAIFI, CAIDI) and above average JD Power customer satisfaction index for residential and commercial customers
- **Current State:** Top quartile reliability indices; Bottom quartile customer satisfaction index
- **Opportunities/Challenges:** Resources (personnel/knowledge/funding), Analytics, Solution Selection

Monthly Performance Dashboard: Grid Modernization

Reliability Performance

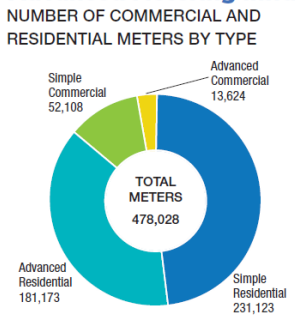


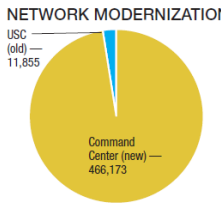
Frequency of Outages: 0.73
Target: 0.75



Duration of Outages: 58.15 minutes
Target: 57.22

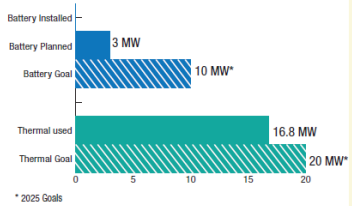
Advanced Metering Infrastructure As of Jul 2017

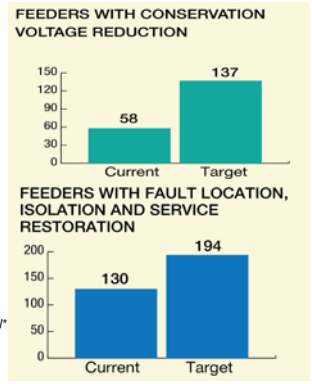




AMI
% Advanced Smart Meters: 41%
% Migrated to Upgraded Network: 98%
Target: 100%

Storage As of Jul 2017





Storage
Electrical: 3MWe (planned) *Target: 10MWe*
Thermal: 16.8MWt *Target: 20MWt*
Feeder Automation *(# of Feeders)*
Conservation Voltage Reduction: 58 *(42%)* *Target: 137*
Fault Location (Phase 1): 130 *(67%)* *Target: 194*

Customer Collaboration Alignment



Advanced Metering Infrastructure (AMI)

- Flexible rate options
- Customer access to their energy usage and usage alerts
- Identification of product opportunities and more tools at the hands of CSRs



Grid Automation

- Two way outage communication/notification
- Reduced outage durations and increased resiliency
- Customer information and history in the hands of field personnel



Distributed Energy Resource Integration

- Customer choice and flexibility
- Customer participation opportunities (e.g. community solar)
- Environmental and Social benefits of reduced carbon emission



Asset Management

- Improved reliability and better identification of customer problems
- Cost savings through operational efficiencies impacting affordability
- More granular customer outage history

Technology Driving Safety

Remote communication and control of T&D assets







Reduced truck rolls

Reduced exposure

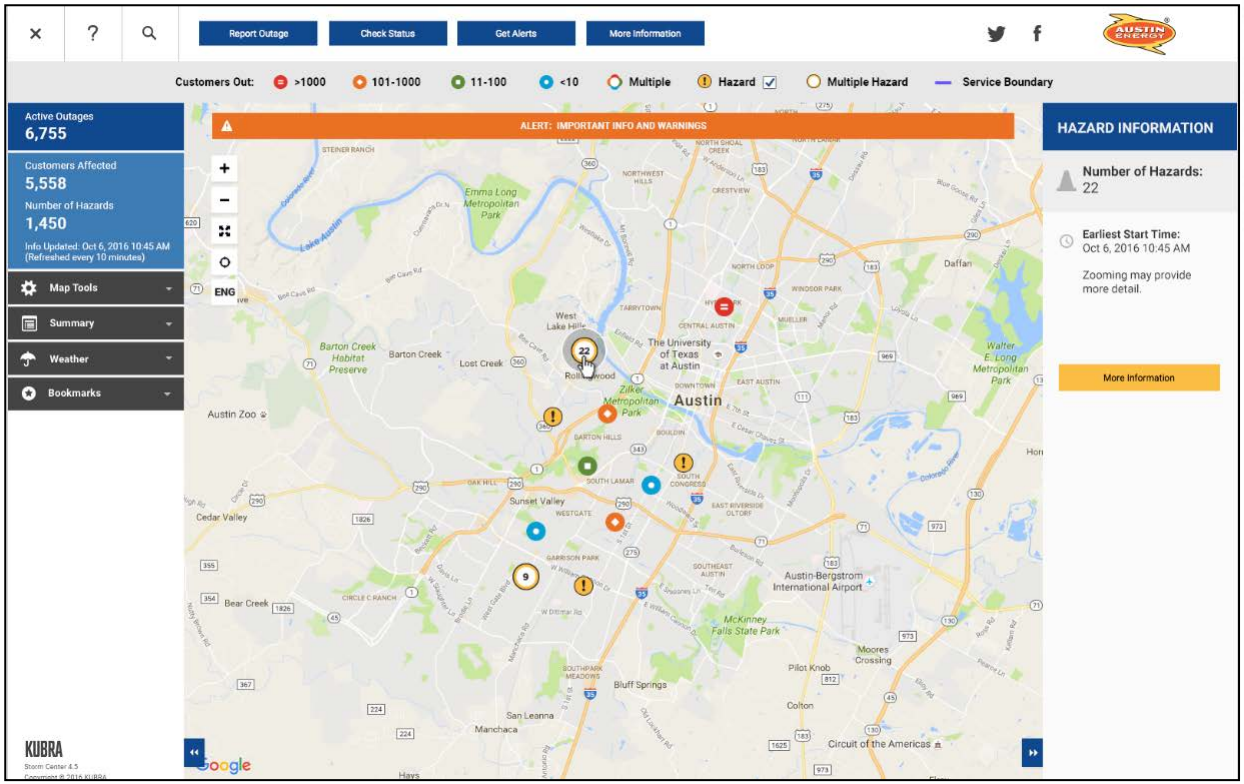
The Benefits of AMI

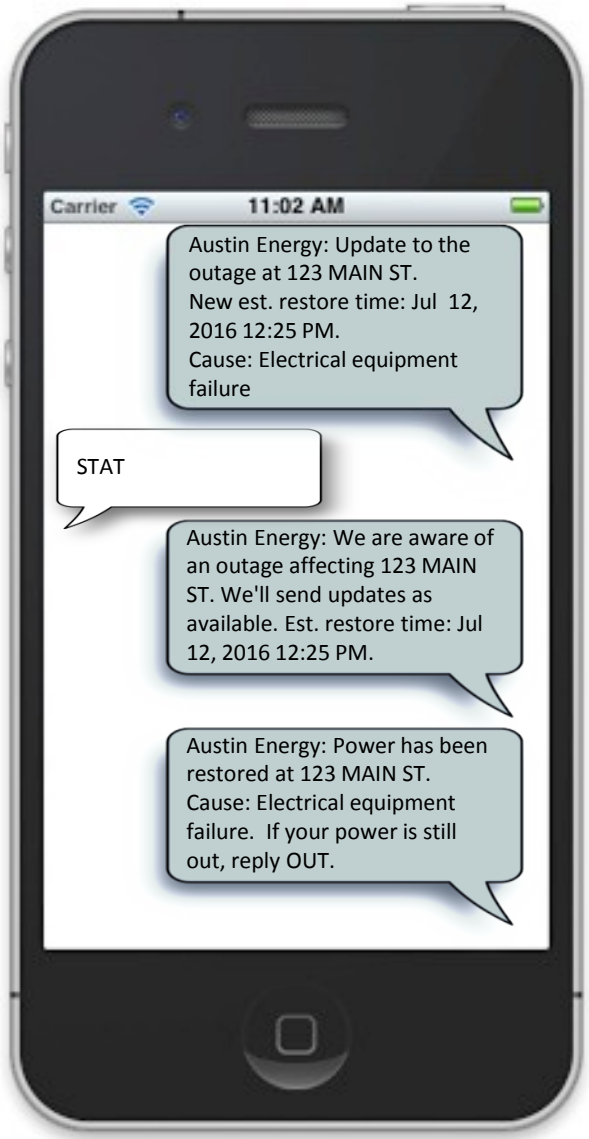
- Customer Collaboration
  - Enhanced Outage Communication
  - Increased Availability of Energy Usage Information
  - Alternative Rate Offerings
- Financial Health and Business Excellence
  - Enhanced revenue detection and protection
  - Remote monitoring and alarming
  - Over the air programming and remote service operations results in less field activities
  - Increased revenue modeling
  - Streamlining Complex Metering Operations
  - Operational efficiencies and cost savings



- Grid Modernization
  - Expanded system monitoring for Conservation Voltage Reduction, Fault Location Isolation & Service Restoration, micro grid, and other grid optimization applications
- Environment
  - Reduced Truck Rolls decreasing carbon footprint
- Employee Engagement
  - Increased personnel and public safety through alarming and monitoring and reduced truck rolls

Customer Communication

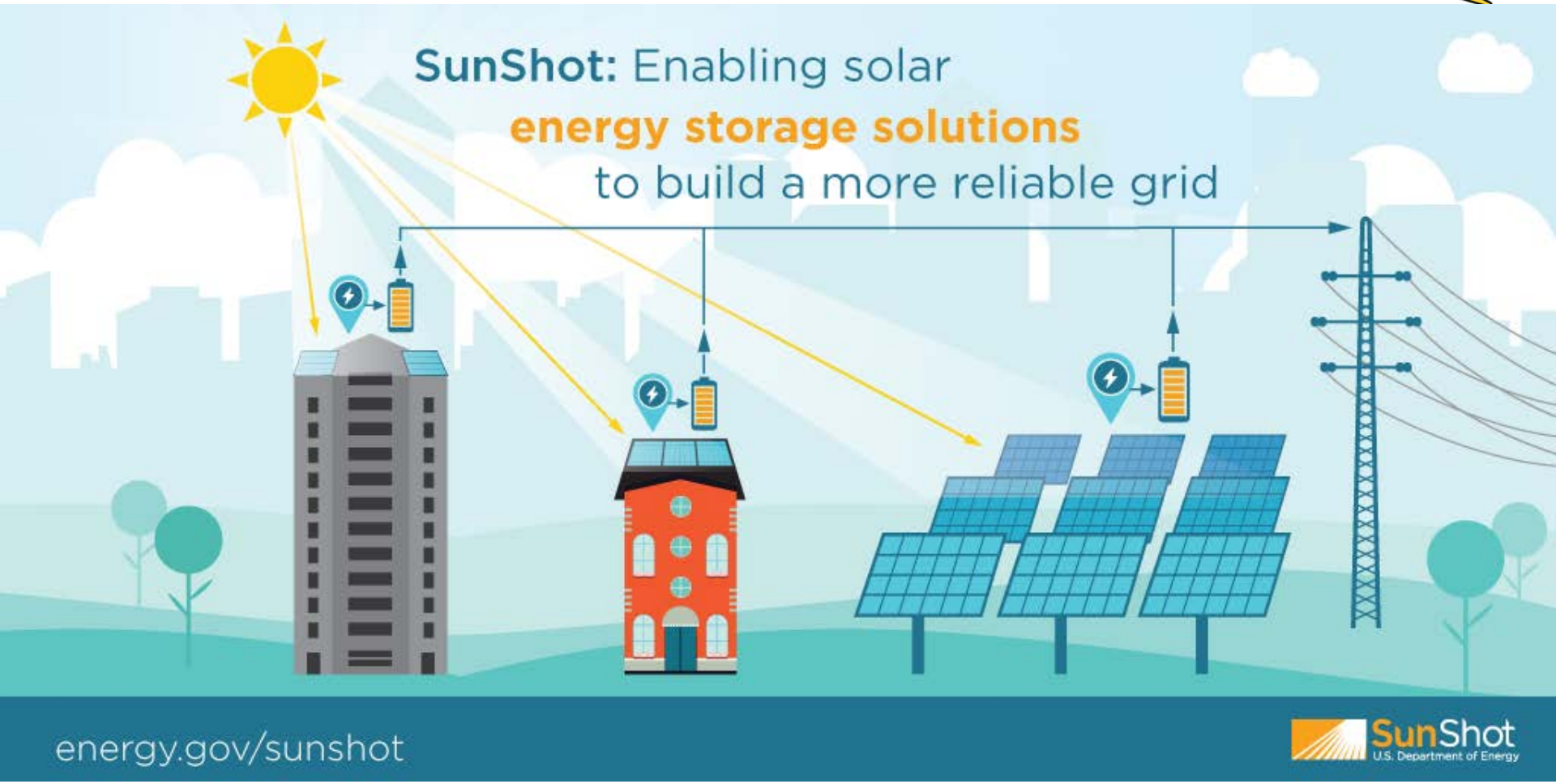




Sign Up Outage Alerts Quickly and Easily

Text **REGISTER** (or **REG**) to 287846

DOE SunShot & SHINES Vision



The projects will work to dramatically **increase solar-generated electricity** that can be dispatched at any time – day or night – to meet **consumer electricity needs** while ensuring the **reliability** of the nation's electricity grid

Future of Inspections



Questions?



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