# 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**

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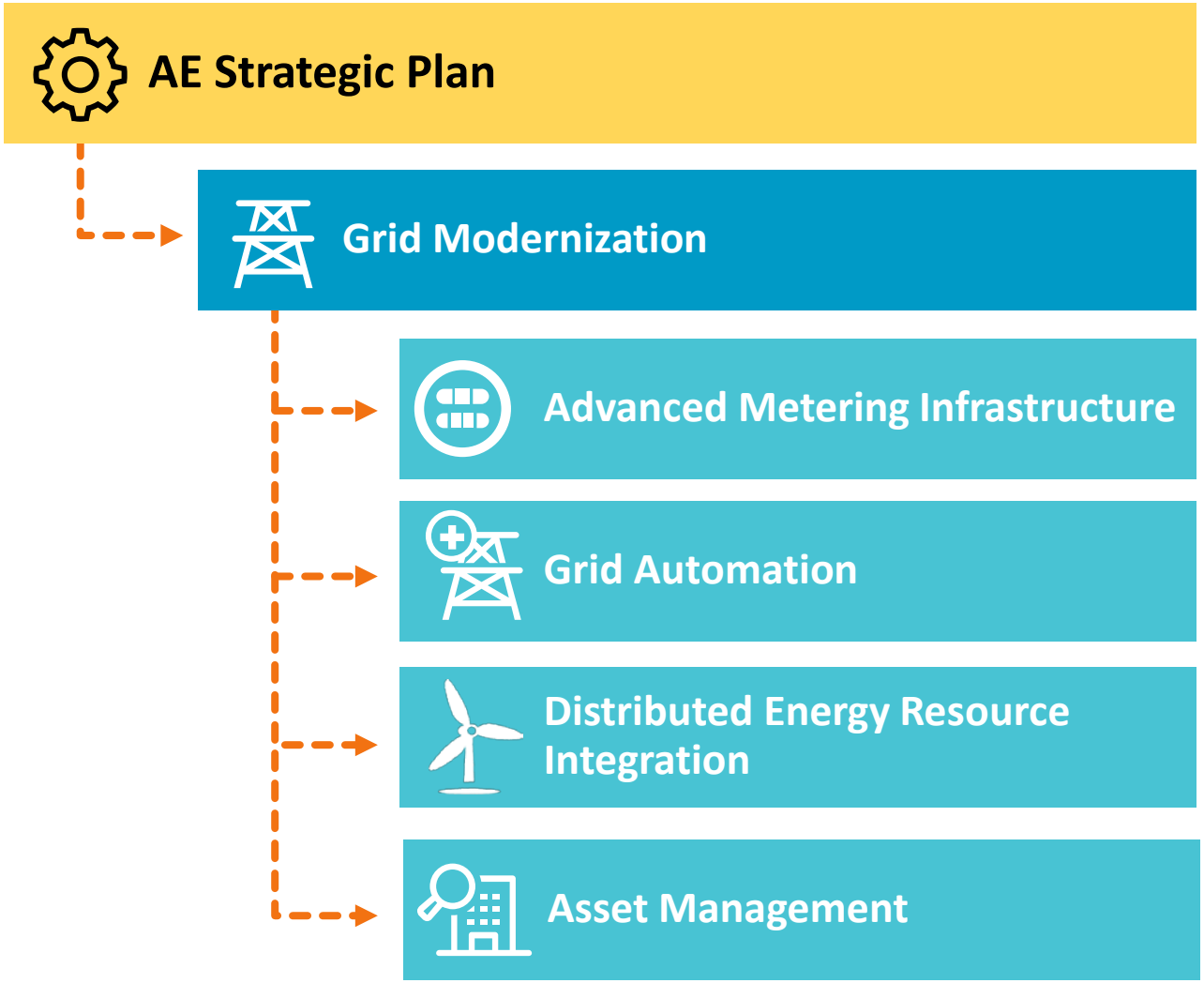
Vibrant. Livable. Connected.

# Strategic Plan and Grid Modernization

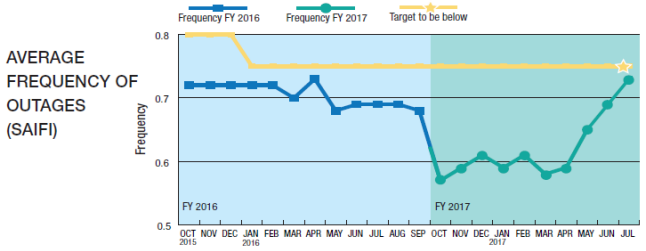


# Grid Modernization

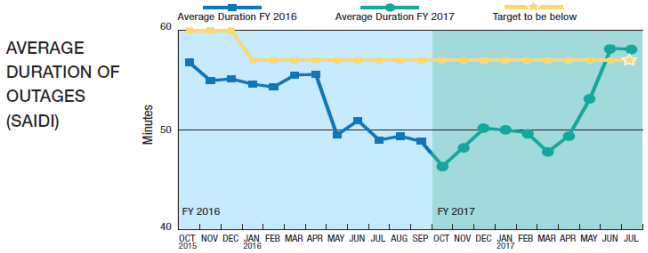
- **Goal Statement:** Innovative two-way grid utilizing customer and company infrastructure to deliver superior reliability and customer experience at the lowest reasonable cost
- **Goal Measure:** Achieve top decile transmission and distribution (T&D) reliability indices (SATLPI, SAIDI, SAIFI, CAIDI) 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

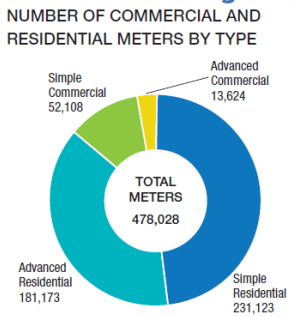


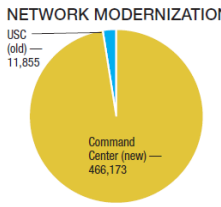

**Frequency of Outages: 0.73**
*Target: 0.75*




**Duration of Outages: 58.15 minutes**
*Target: 57.22*

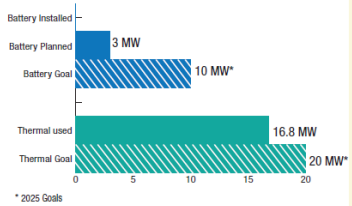
## Advanced Metering Infrastructure As of Jul 2017

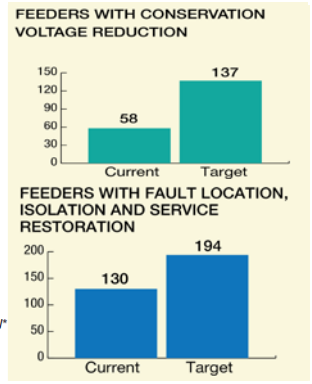



**AMI**
**% Advanced Smart Meters: 41%**
**% Migrated to Upgraded Network: 98%**
*Target: 100%*

## 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

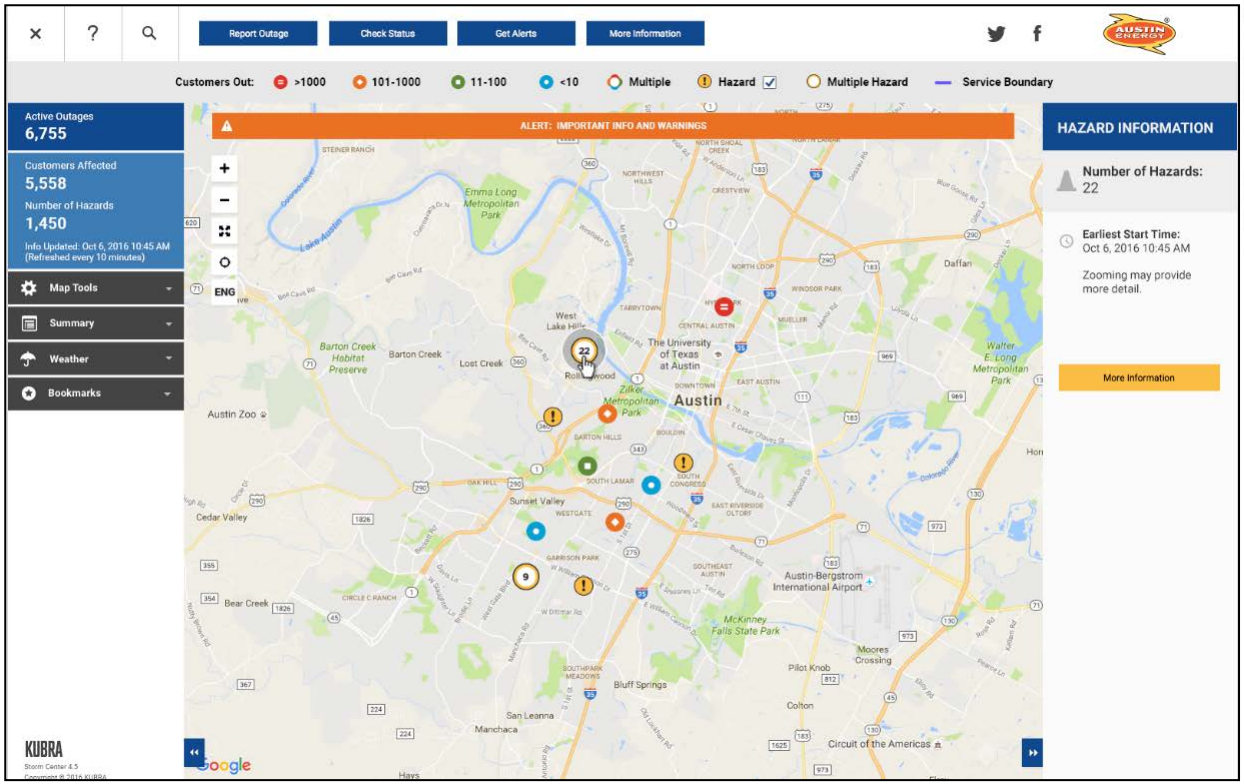
Reduced exposure

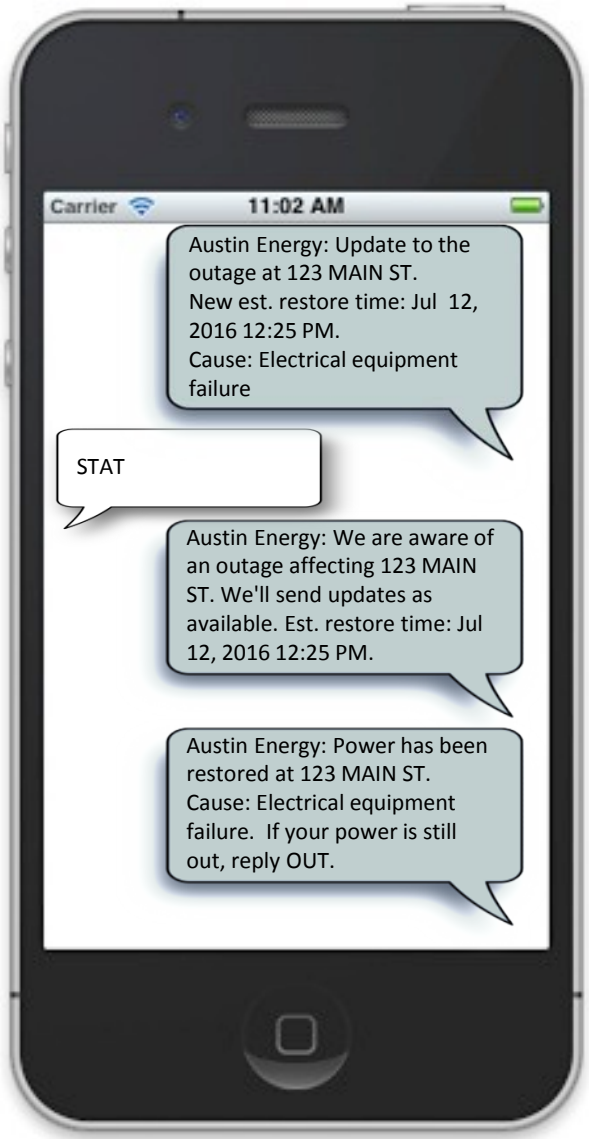
# The Benefits of AMI

- 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

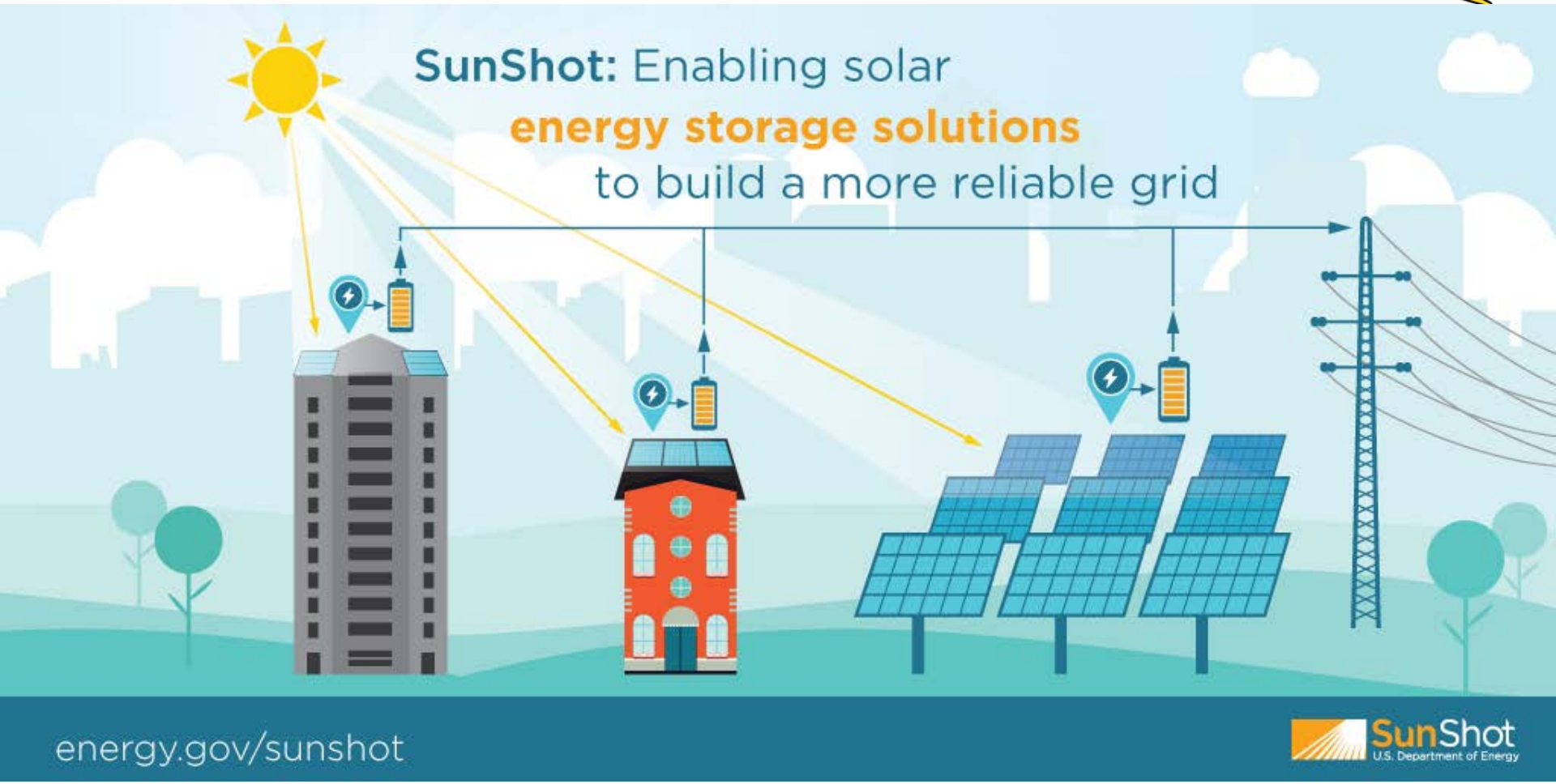



**Sign Up Outage Alerts Quickly and Easily**

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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