2016 Consumer Symposium

What’s Next for the Smart Grid?

#SGCC2016
What’s Next for the Smart Grid?

Rick Thompson, President and Co-Founder at Greentech Media

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Dan Smith, Austin Energy

David Oberholzer, WeatherBug Home
2016 Consumer Symposium: The Connected Consumer & the Future of the Grid

What’s Next for the Smart Grid?

Dan Smith – Austin Energy
VP Electric Service Delivery
February 2016
About Austin Energy

• 8th largest community-owned electric utility

• Responsible to the City Manager who executes the policy and direction of City Council

• 437 square miles of service area covering City of Austin and 14 other local cities (1 million residents)

• Vertically-integrated utility in a deregulated wholesale market

• Annual budget - $1.5 billion

• System peak load - 2714 MW (summer) 
  2195 MW (winter)

• 623 miles of 345kV, 138kV, and 69kV Transmission Lines

• 11,429 miles of Distribution Lines

• 74 Substations

• 450,000 meters (~45,000 C & I)

Mission: Deliver clean, affordable, reliable energy and excellent customer service
Customer Sited Solar

Austin Energy Solar Locations

May 2015

- Commercial 10.9 MW
- Residential 16.2 MW

Mueller – Key Project Location
Austin Energy 2025 Goals

55% renewable energy

900 MW of savings from energy efficiency and demand response

Solar includes 200 from local; 100 MW customer-sited; 10 MW local storage

All City of Austin facilities, operations and fleet carbon neutral

Subject to Affordability Goals
SHINES Conceptual Architecture

- Utility Scale Energy Storage + PV
- Commercial Energy Storage + PV
- Residential Energy Storage + PV
- DER Management Platform

Illustrative
Weather Matters: Weather is the Biggest Driver of Home Energy Use

50% of your energy use is driven by the weather.
Energy Intelligence for the Connected Home

Hyper-local Real-time Data

Energy Usage Data

Connected Thermostat

Connected Devices

DATA

COLLECTION

OUTPUT

UTILITY BENEFITS
Energy Efficiency
DR/Load Optimization
Consumer Engagement

CONSUMER BENEFITS
Energy Efficiency
Home Insights
Device Optimization
WeatherBug Home Solutions

**ENERGY EFFICIENCY**

- Intelligent Device Optimization
- ScoreCards & Mobile App

**DEMAND RESPONSE**

- Intelligent Demand Response
- WeatherBug Mobile App

**Intelligent Demand Side Management**

- Automation
- Behavioral

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An Independent Study Finds WeatherBug Home Delivers 3X Higher Consumer Energy Efficiency With Improved Customer Comfort in Utility Pilot…

WeatherBug Home managed thermostat saved 16.5% electricity compared to 5.1% savings from a connected thermostat. An incremental saving of 11.4% more in energy use.