

ENGAGING CUSTOMERS IN A FRESH, NEW WAY

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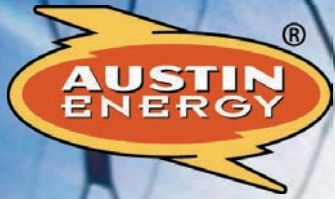


MAYOR'S OFFICE OF
ECONOMIC
DEVELOPMENT
MAUI COUNTY



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DEVELOPMENT BOARD





Engaging Customers In Fresh New Ways

Maui Energy Conference

March 26, 2015

CLEAN, AFFORDABLE, RELIABLE ENERGY & EXCELLENT CUSTOMER SERVICE



Austin Energy: Who We Are

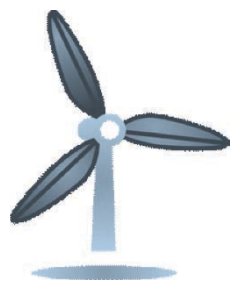


- Public Power Utility (8th Largest)
- 435,000 Customers
- 1 Million Residents
- 437 Square Miles
- 2,800 MW Peak Demand
- \$1.5 billion annual budget

- Mission: *Deliver clean, affordable, reliable energy and excellent customer service*



2025 Goals



55%

55% renewable energy

900 

MW

900 MW of savings from energy efficiency and demand response

950 

MW

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



All City of Austin facilities, operations and fleet carbon neutral

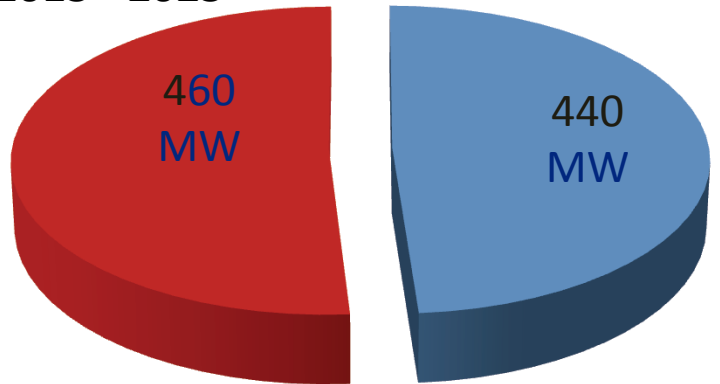
Subject to Affordability



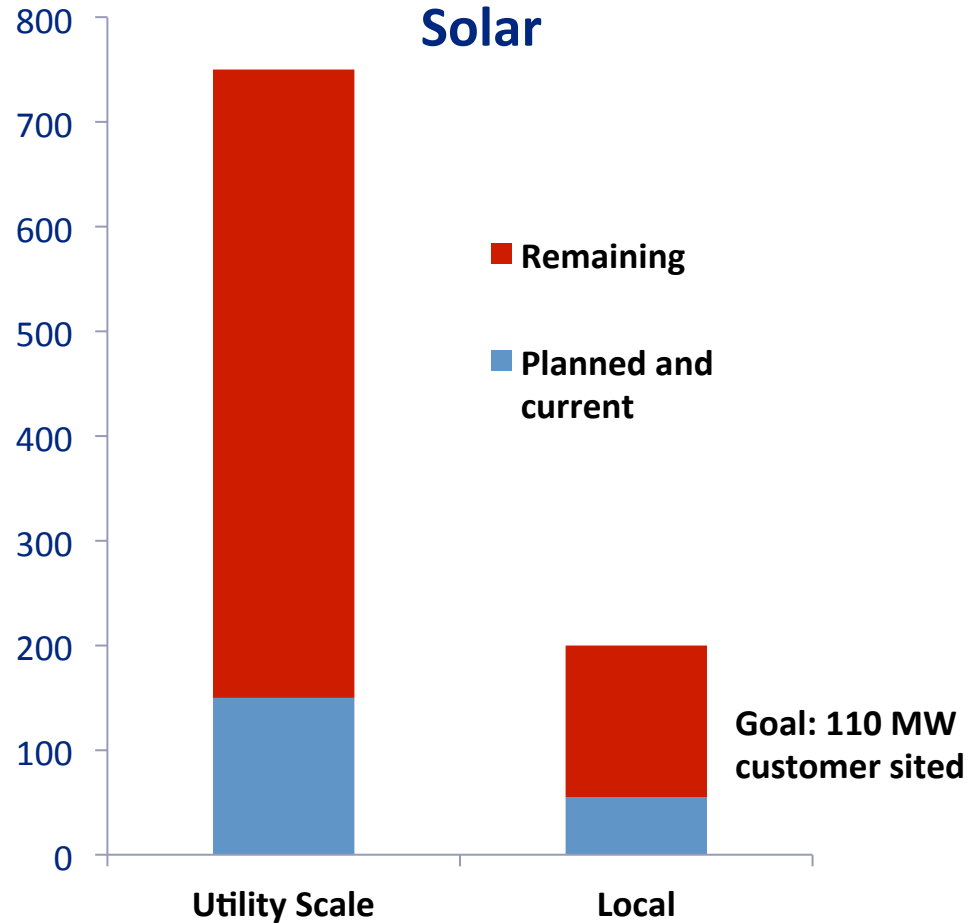
Goal Status 2007- 2015

Energy Efficiency Savings

Remaining:
2015 - 2025



Pre-2007 savings of 700 MW

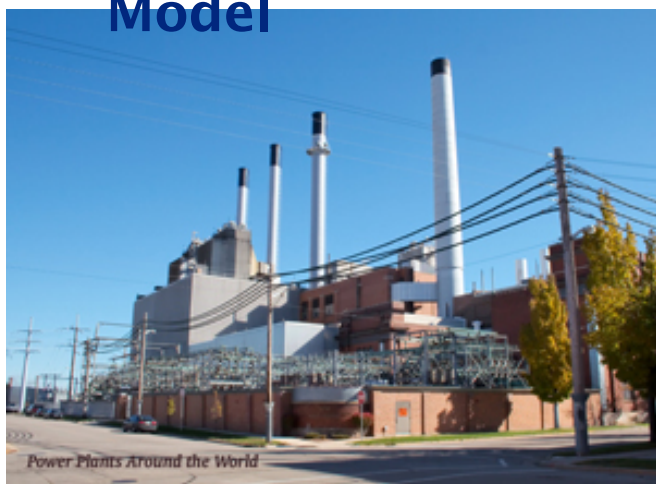




Utility Transformation

21st Century

20th Century Model



Source: www.industcards.com/st-other-usa-oth.htm



Source: monkeybusinessimages/Bigstock.com

Increase sales
Build and spend
Enhance reliability

Increase value
Products and services
Experience beyond
reliability and customer
service



Utility Customers Changing Demographics

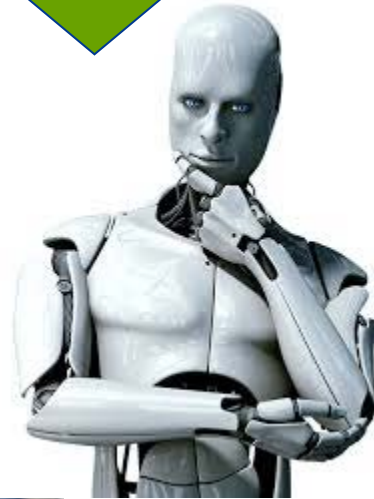
- Connected since birth
- Technology adept
- All have cell phones
- Open to change

Millennials

Generation Y

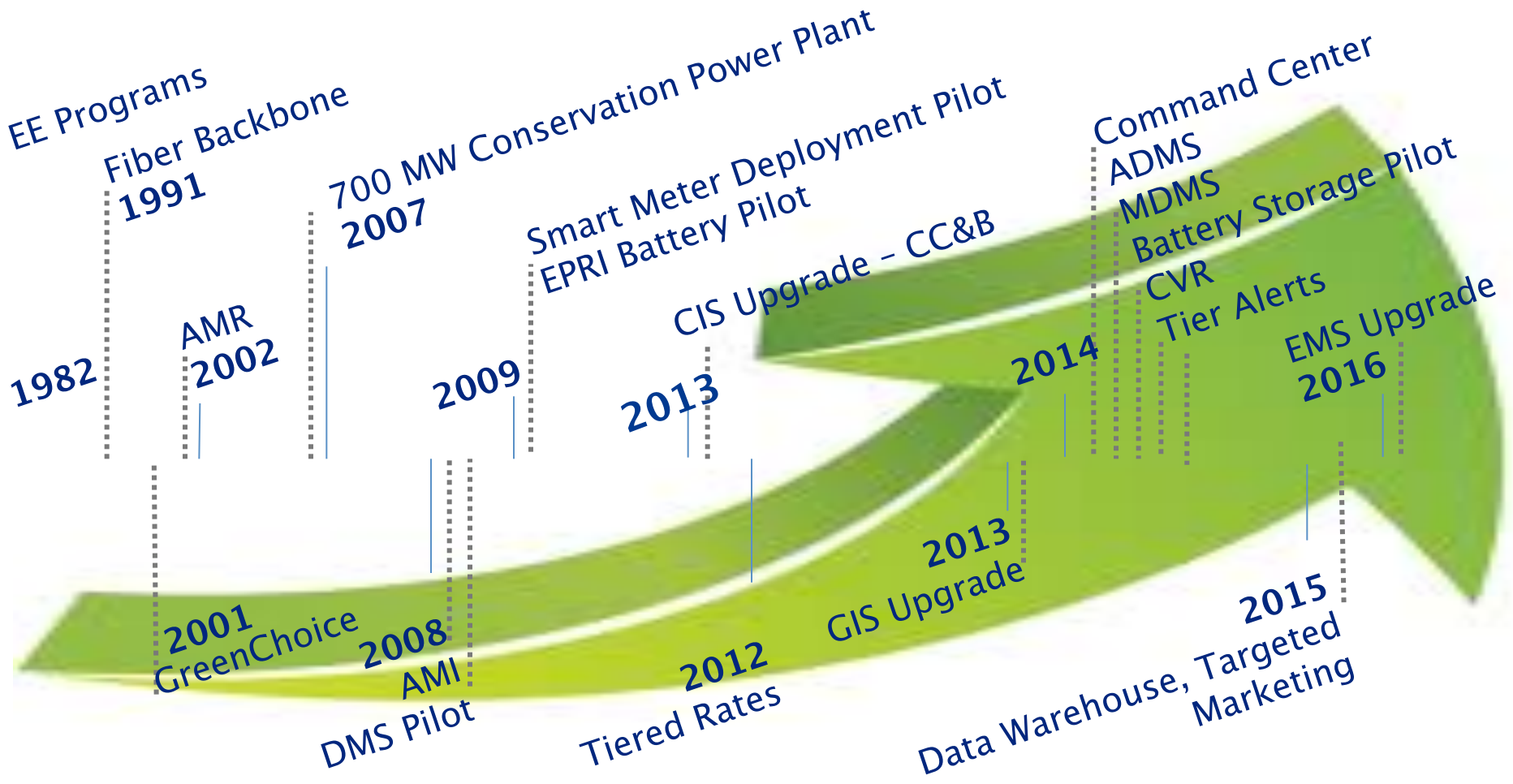
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Net Generation





Customer Engagement Infrastructure





Smart Utility 'Journey'

Evolving beyond working on Smart Grid Projects to implementing a Smart Utility Vision aimed at:

- improving customer engagement,
- enhancing safety and reliability,
- improving workforce efficiency and productivity,
and
- integrating demand response, battery storage and renewables.



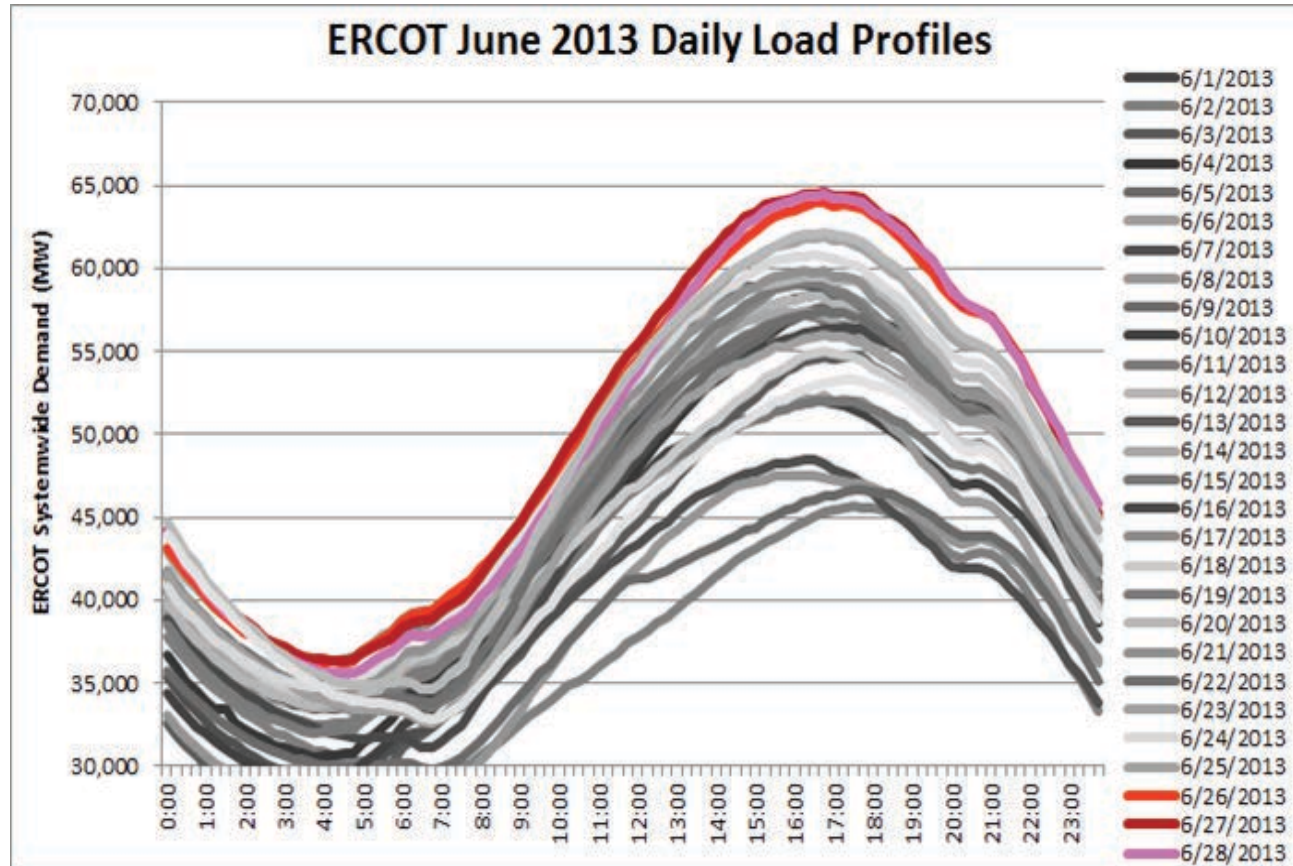
Residential Programs

- Bring Your Own Thermostat
- Power\$aver Volunteers
- Web App – Tier Alerts



Big Picture: ERCOT and Energy Load

- Population Growth → Load Growth
- Peak Load is 50-70% Residential & Small Commercial AC Load
- Market cap: \$9000/MWh





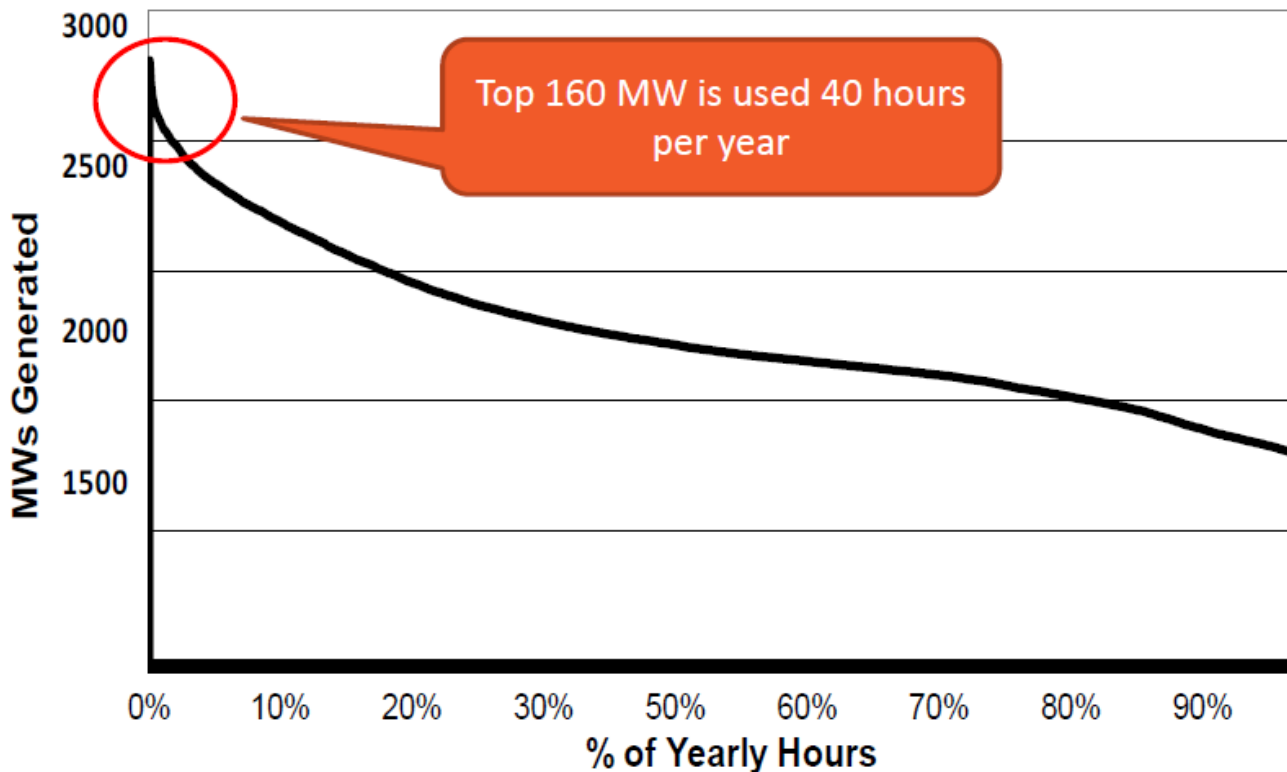
ERCOT, AE & Demand Response

Current Market

- Penetration:
 - ERCOT @ 4% (1600 MW)
 - AE @ 2% (58 MW)

Recognized Potential

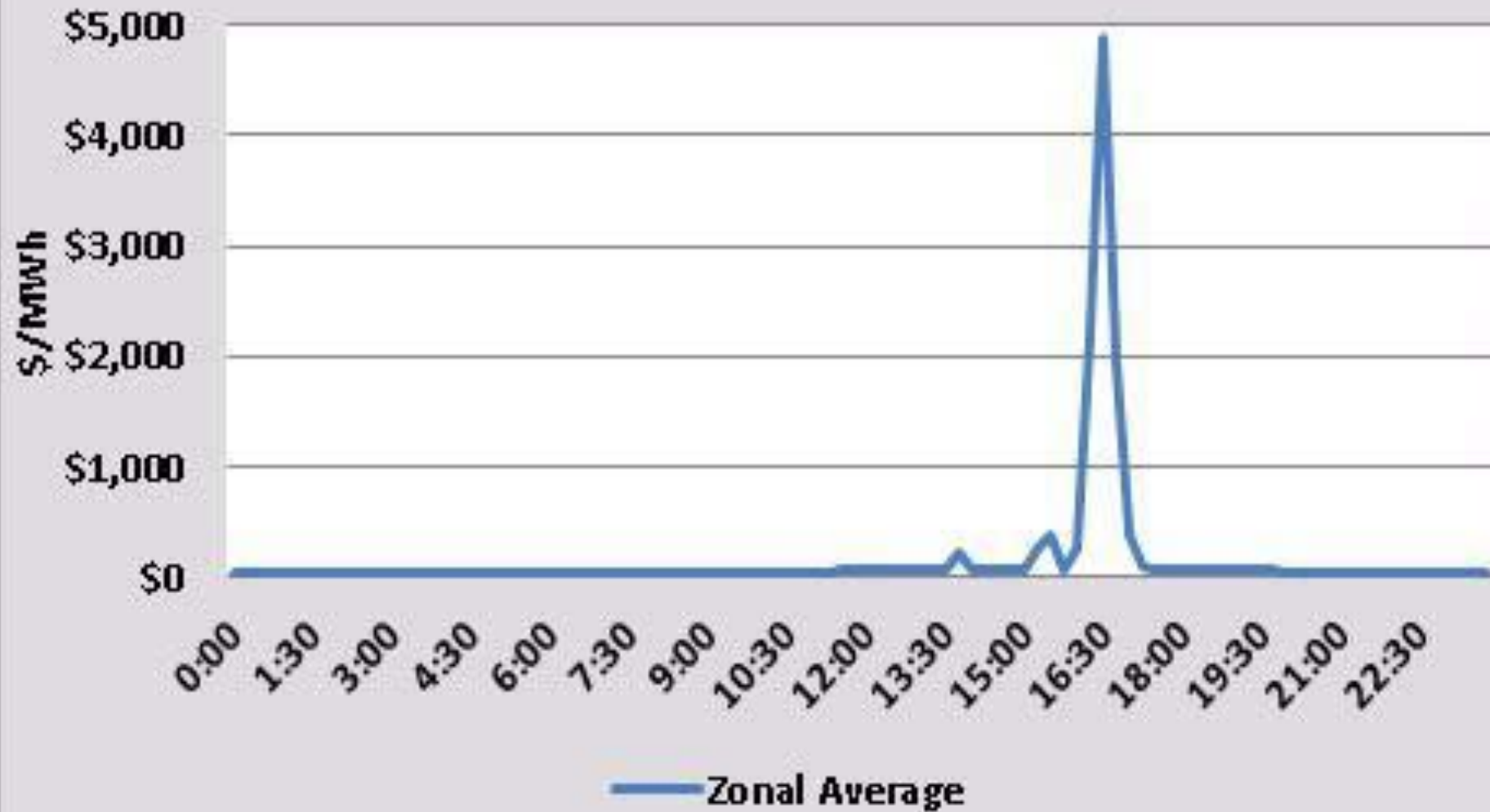
- ERCOT: 8 - 15% (3200 – 6000 MW)
- AE: 5.5% (150 MW)





ERCOT – September 3, 2013

ERCOT 15 Min. Interval Real Time Prices



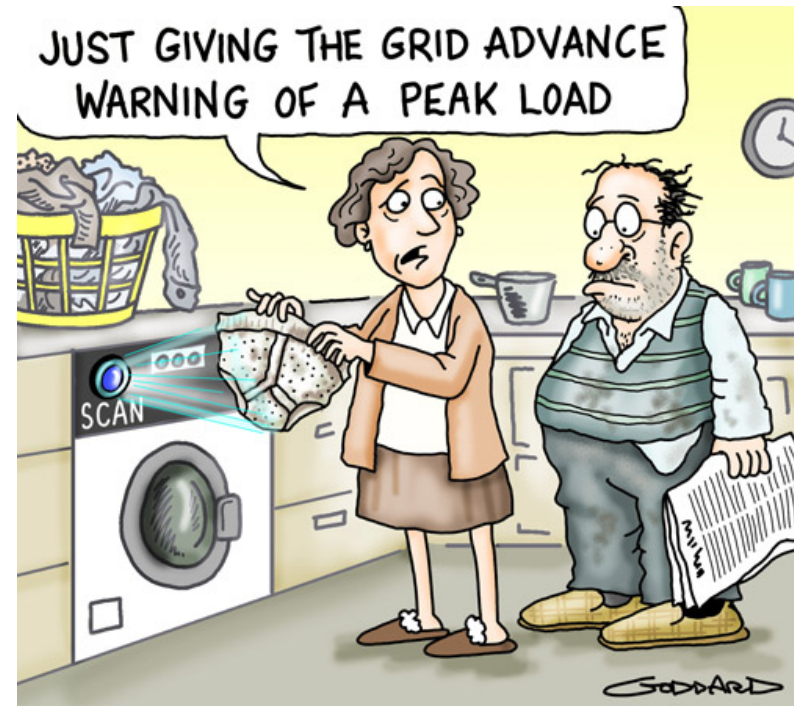


Traditional Thermostat Model (Maintenance Mode)



- Started in 2001
- Serves SF, MF and Com
- “Top Down”: Thermostat, install, maintenance, call center through City’s Vendor
- One Way Communication (Radio Signal on the Pager Network)
 - No smart phone connectivity for customers
 - No claim to energy efficiency savings
 - Difficult Opt Out Process
- 30% Cycling Strategy
- ~ 90,000 Installed (66 MW)
- ~ 60,000 in place (44 MW)

- 2-Way Communicating
 - Response Verification
 - Customer smart phone access
 - Better curtailment strategies available
 - Energy efficiency savings
 - Business intelligence (ie: run time data)
- Improved Opt-Out Process





BYOT Residential Thermostat Model

- Started in 2013
- Enroll your own internet-enabled thermostat
- Choice: 14 approved devices
 - Alarm.com, ecobee, Filtrete, Nest, Nexia Home Intelligence, Radio Thermostat
- Rebates
 - Customer: \$85
 - To Vendor: \$25/customer enrolled; \$15/year for maintaining the customer





Traditional VS New Business Models

Traditional

- High upfront cost with longterm responsibility
 - Maintenance costs
 - Call Center Costs
- Poor integration with other programs
- Limited customer choice
- Best suited for MF market

New

- Low upfront cost with low responsibility
- Ease of integration with other programs
- Range of customer choice, poised to expand
- Promotes technological innovation
- Promotes open standards and interoperability
- Best suited for SF market



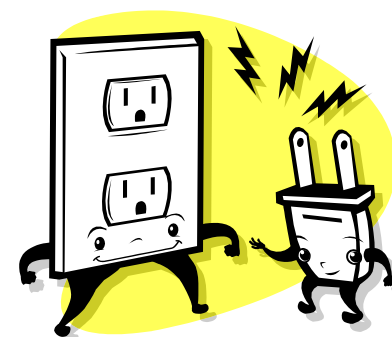
Really, Really Simple Marketing

- Enrollment and participation voluntary (opt out using your thermostat, phone app or web)
- Summer Only (June-September)
- Weekdays Only, No Holidays
- Events typically 2 hours long (4-6 pm)
- Typically 15 events/year





- Summer 2013 Participation
- Proof of Concept: Hardware Neutrality & Open Standards
- AutoGrid's DROMS: Call Events on multiple products, one log-in
 - 2 thermostat (Head-End Integration)
 - ecobee (30 units): API Integration
 - EnergyHub (30 units): Open ADR 1.0
 - 1 Electric Vehicle (EV) charger
 - Coulomb (15 units): Head end to head end
 - Customer Opt Outs Handled by DROMS





First Year Results

- Low first costs
- Enrolled over 4000 thermostats in 5 months
 - With NO marketing by AE
- Good uptake by customers & media
- Good Data to work with from AMR network
 - Increased kW savings with new strategies and 2 way communication (.7 to >1.4 kW)
 - Measured opt outs
 - First hour results exceed second hour
 - Completing research on energy savings



Power\$aver Volunteers

OLD

- "Curtailment Reminder 2"
- This is a message from the Austin Energy Volunteer Program.
- Please lower your energy use today, Friday, June 17, 2011 from 4 p.m. - 6 p.m.



MATT GROENING



Power\$aver Volunteers

NEW

- "Energy Saver Tip"
- This is a message from the Austin Energy Power Saver Volunteer Program.
- Cook smart by using the microwave, which uses up to 70% less energy, cooks 75% faster and produces less heat than an electric or gas oven. Avoid turning on the oven during the day





Tactics

- Monthly newsletter
- Constant Contact
- Events and Marketing
- Summer Challenge
- Web link
- Surveys



Survey Question

Do You Set Your Thermostat Back?

| | | Survey year | | |
|---|-----|-------------|------|------|
| | | 2010 | 2011 | 2012 |
| <i>Programmed it in the summer to go to a higher temperature when people are out of the house</i> | No | | | |
| | Yes | | | |

Source: The Nielsen Company 2012 Energy Survey



Customers Say

Not Really ... And the Trend is Going in the Wrong Direction!

| | | Survey year | | |
|---|-----|-------------|-------|-------|
| | | 2010 | 2011 | 2012 |
| <i>Programmed it in the summer to go to a higher temperature when people are out of the house</i> | No | 47.3% | 53.7% | 56.3% |
| | Yes | 52.7% | 46.3% | 43.7% |

Source: The Nielsen Company 2012 Energy Survey



Residential Web Application

Any where, any time, any device

- Easy to use
- Accessible from any web-connected device
- Next day information
- Color-coded tiers
- Usage alerts

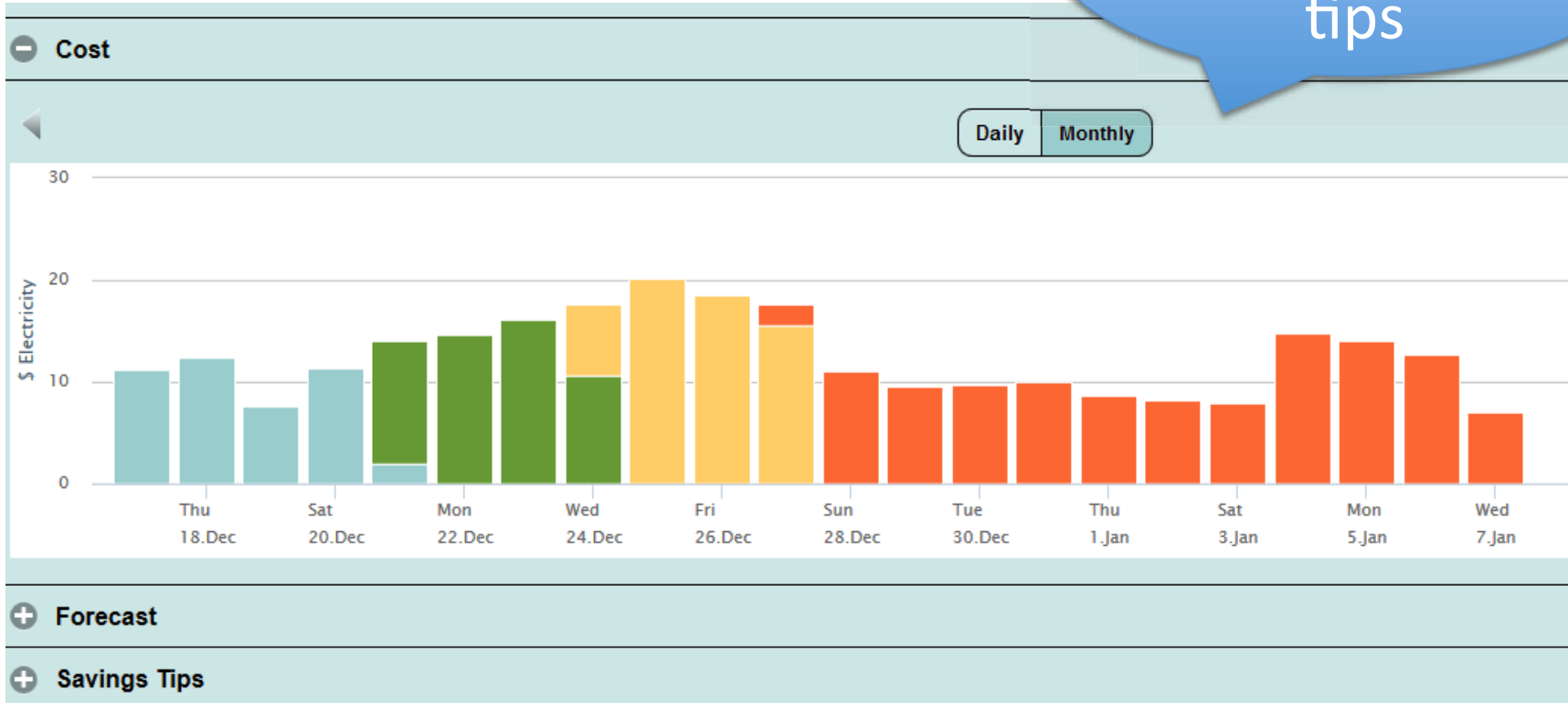


Communicate in a way that is relevant and meaningful



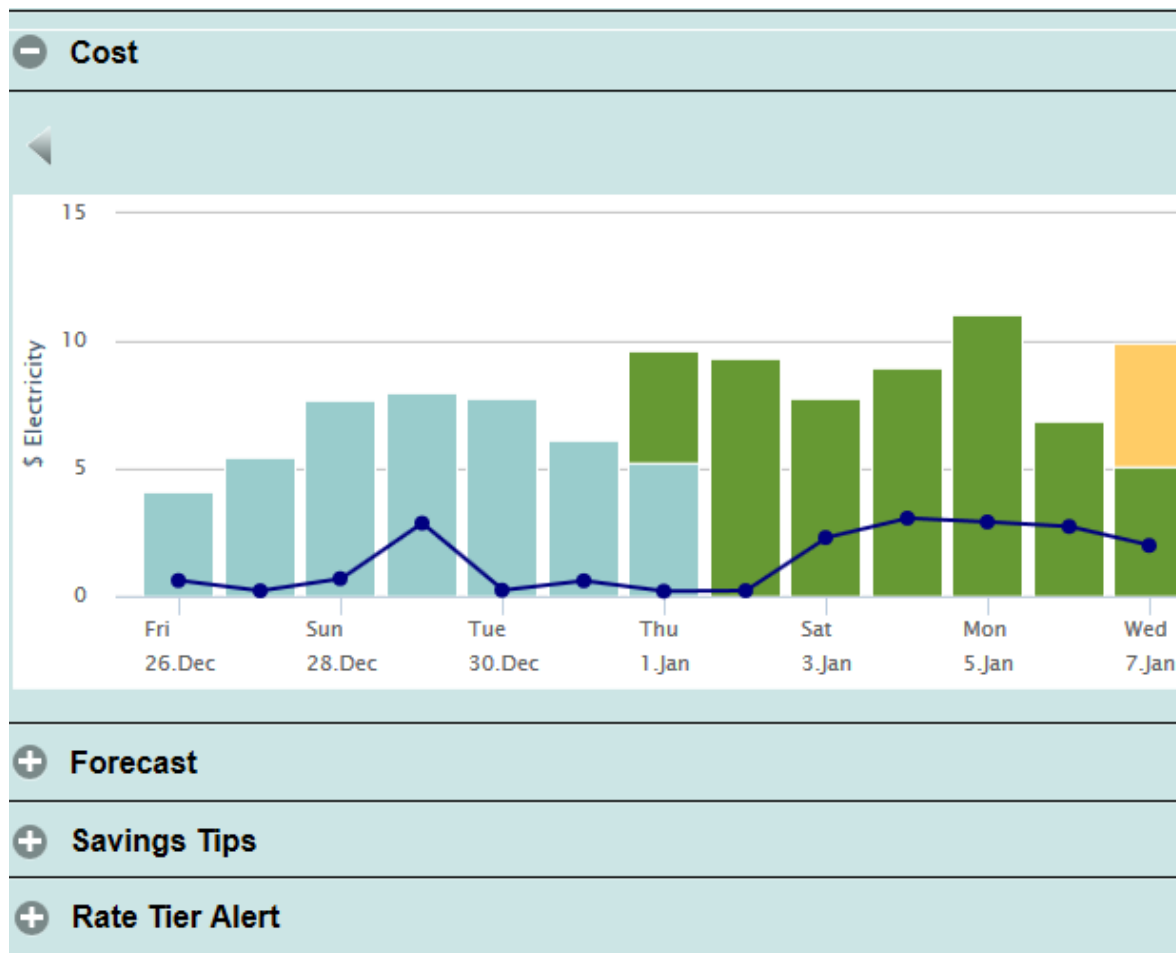
Daily Residential Tier Data

Customers can share savings tips





Daily Residential Solar Data





Moving Forward

- Added energy efficiency measure tracking to residential app
- Created commercial app for kW alerts
- Commercial estimation Tool
 - Assess rate increases
 - Changes in fuel costs
 - Determine impact of rate options



Become more customer-centric

- Isn't just about technology, smart grids, program design
- Need to develop products and services that customers value
- Take risks
- Listen to what customers say; but pay attention to what they **do**
- Communicate in terms that customers understand, via media customers use.



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What We Want



priceless?



\$76 billion
(Apple)

\$21 billion
(Nokia)

\$4.1 billion
(Starbucks)



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Mahalo!