Customer Engagement in a Changing Environment

UT Energy Week – February 8, 2017
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Austin Energy At-A-Glance

- Serving Austin Since 1895
- 8th largest publicly owned electric utility in US
  - 455,000 customers, serve >1 million residents in Greater Austin
  - Peak Demand: 2,800 MW
  - Own & operate 11,429 miles of distribution grid
- 31% renewable power supply (FY16)
- Ambitious solar and energy efficiency goals
Clean Energy Goals in Generation Plan

55% MW

Offset 55% of customer load with renewable resources by 2025.

900 MW

900 MW of savings from energy efficiency and demand response by 2025.

950 MW

750 MW utility-scale solar + 200 MW local solar by 2025, including 100 MW customer-sited PV.

200 MW

10 MW storage and 20 MW thermal energy storage by 2025.

0 CO₂

Net zero community-wide GHG emissions by 2050.

*All subject to meeting **Affordability Goals:**
<2% rate increase per year; AE rates in lower half of Texas utilities.
What do Today’s Customers Want?

Really

• Comfort
• **Price** Choices
• Lifestyle options
• Convenience
  – Self or
  – Human interaction or
  – Both
• Low **Bills**
• Value – products, services, relationships
• **Know my needs**

… anticipate my future needs!
Top Performers excel at the basics and strive to continuously improve

* PQR: Power Quality & Reliability
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<th>Importance</th>
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<tr>
<td>Provides reliable energy</td>
<td>9.7</td>
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<tr>
<td>Is trustworthy</td>
<td>9.4</td>
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<td>Effectively communicates during outages</td>
<td>9.2</td>
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<tr>
<td>Works to keep energy prices down</td>
<td>9.2</td>
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<tr>
<td>Provides useful information</td>
<td>8.7</td>
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<tr>
<td>Provides resources that help me manage my organization’s energy costs</td>
<td>8.2</td>
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<tr>
<td>Variety of rate options</td>
<td>7.9</td>
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<tr>
<td>Is an environmental steward</td>
<td>7.9</td>
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<tr>
<td>Variety of programs and services</td>
<td>7.4</td>
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<td>Is active in the community</td>
<td>7.1</td>
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Customer-Sited & Community Solar

- **Commercial** - 18.5 MW, 400 customers
- **Residential** - 25.6 MW, 5500 customers
- **Community Solar** - 185 kW, 25 customers, 2.5 MW in progress

Austin Energy Solar Locations

October 2016
• Typical Net-Metering programs provide renewable energy producers with full retail value for their production.

• Utility Under-Recovery
  – Many utilities rely primarily on volumetric charges to recover fixed costs, as fixed charges have disproportionate impacts on low-income customers
  – Net Energy metering policies allow customers to offset volumetric charges at full retail value (with a one for one exchange)
  – As a variable generation resource, distributed solar typically does not completely offset fixed costs
Challenges of Net Metering

Under net metering in an “inclining block rate” structure:

• Customers with higher consumption are compensated at a higher value per kWh than customers in lower tiers
  – Equity issue
  – Regressive
  – Doesn’t encourage energy efficiency

• Customers with lower levels of consumption are compensated at a level below the value of the energy to the system
  – Disincentive for small or energy efficient homes to go solar

• Customers with higher levels of consumption are compensated at a level above the value of the energy to the system
  – Signal sent to customers is that production offsetting higher tiers of consumption is more valuable to the utility
  – The utility under-recovers the cost of service, having to spread that cost across all customers
Value of Solar Addresses Some NEM Challenges

- Recovers fixed costs
- Improves equity
  - Between solar customers
  - Between solar and non-solar customers
- Better reflects value of local generation
- Promotes efficiency & conservation
Understanding Customer Value Propositions & Tradeoffs: Key to Mutually Beneficial Customer Engagement

- **Control**
- **Incentive**
- **Information Shared**
- **Customer Effort**
Questions?