ERCOT Overview

Smart Energy Summit
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North American Interconnected Grids

- The ERCOT Region is one of 3 North American grid interconnections
- The ERCOT grid:
  - Covers 75% of Texas land
  - Serves 85% of Texas load
  - >40,000 miles of transmission lines
  - >550 generation units
  - Physical assets are owned by transmission providers and generators, including municipal utilities and cooperatives

ERCOT connections to other grids are limited to direct current (DC) ties, which allow control over flow of electricity
North American ISOs and RTOs
Off-peak vs. on-peak load by customer type

Wednesday
March 9, 2011
5:15 PM
ERCOT Load: 31,262 MW
Temperature in Dallas: 64°

Wednesday
March 9, 2011
5:00 PM
ERCOT Load: 68,416 MW
Temperature in Dallas: 109°

- Customer class breakdown is for competitive choice areas; percentages are extrapolated for munis and co-ops to achieve region-wide estimate
- Large C&I are IDR Meter Required (>700kW)
August 3, 2011 Generation by Fuel

- Gas
- Wind
- Other*
- Coal
- Nuclear

*Other includes Hydro, Biomass, Solar, and unknown sources

>28 GW
One more way of looking at ERCOT

Dozens of REPs competing for residential and small commercial accounts

Mostly flat-price options including pre-paid, renewables

AMI deployment underway

‘Utility’ in the traditional sense in no longer a valid term

Muni’s and co-ops are still vertically integrated

Many have existing and developing smart grid initiatives:
-- AMI
-- Smart thermostats
-- Other DLC

Possible triggers: Real-time prices, congestion management, 4CP response

![Pie chart: Competitive Choice vs. Muni/Co-op Load]

- 73.7% Competitive Choice
- 26.3% Muni/Co-op Load

MWh 12/1/10 thru 8/11/11
Questions?

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