



# ERCOT Overview

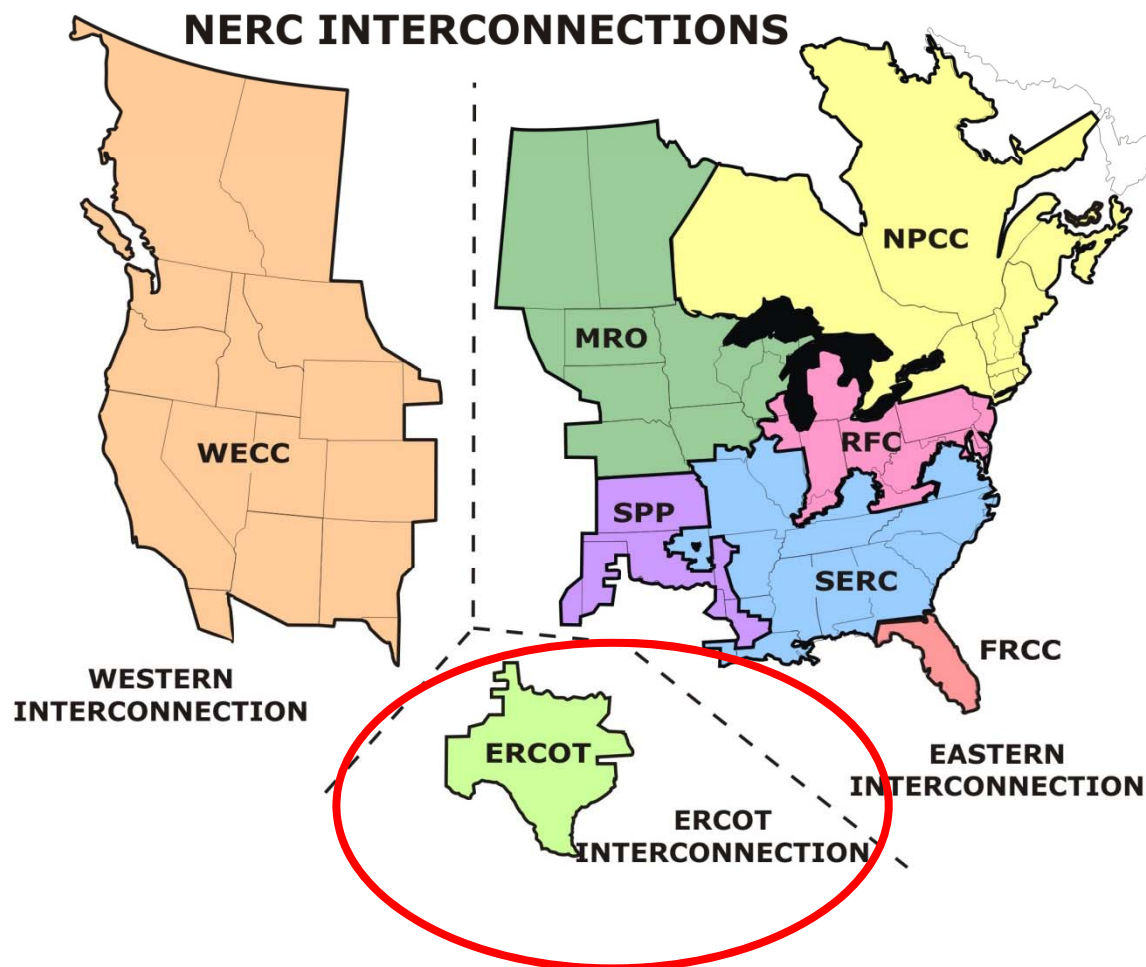
Smart Energy Summit

Feb. 28, 2012

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ERCOT Demand Integration Team

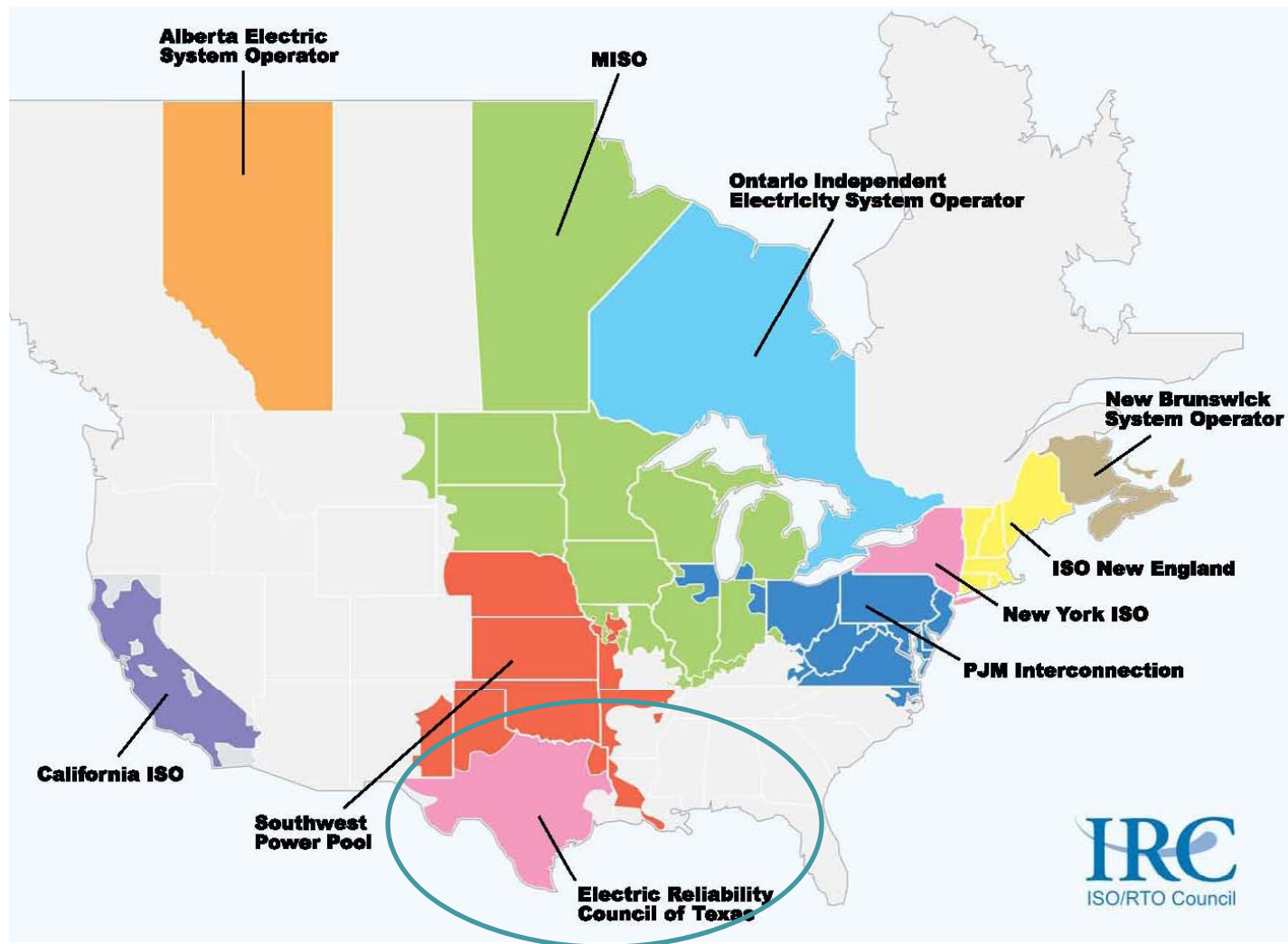
# North American Interconnected Grids



- 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

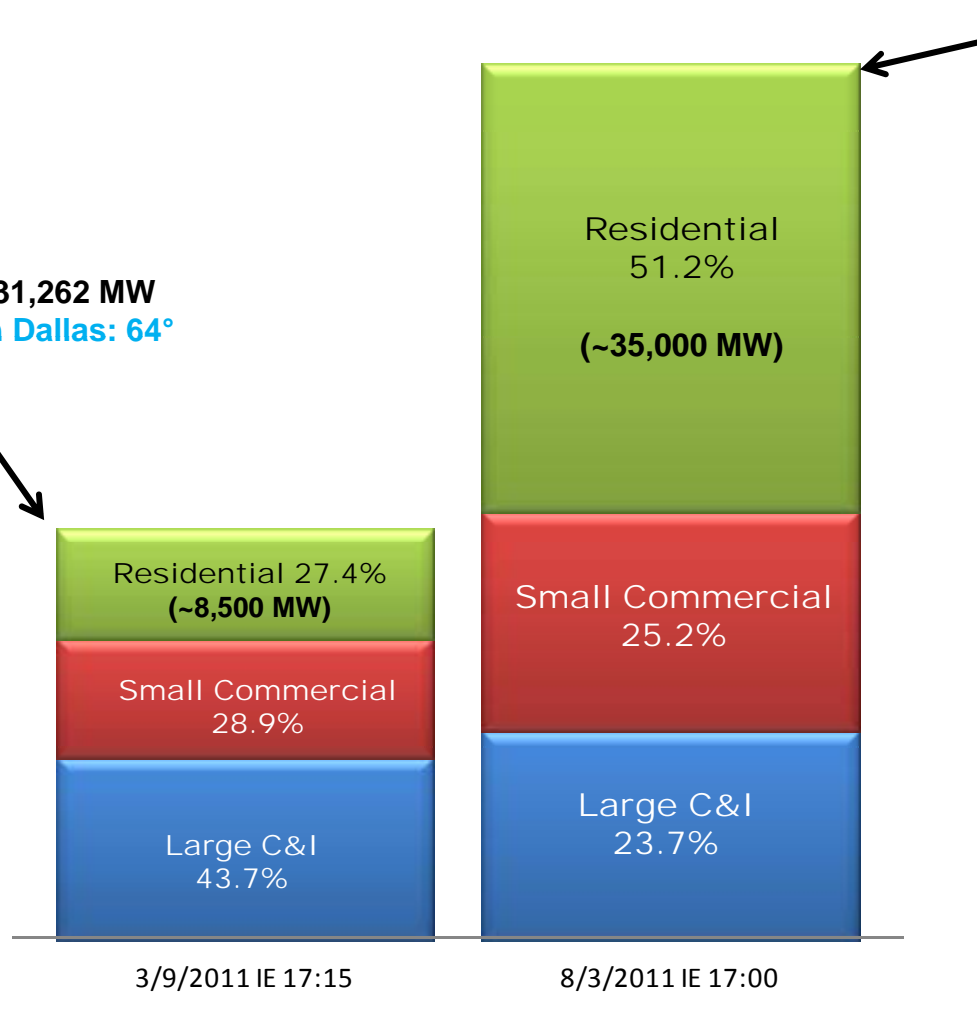
*ERCOT connections to other grids are limited to direct current (DC) ties, which allow control over flow of electricity*

# North American ISOs and RTOs



# Off-peak vs. on-peak load by customer type

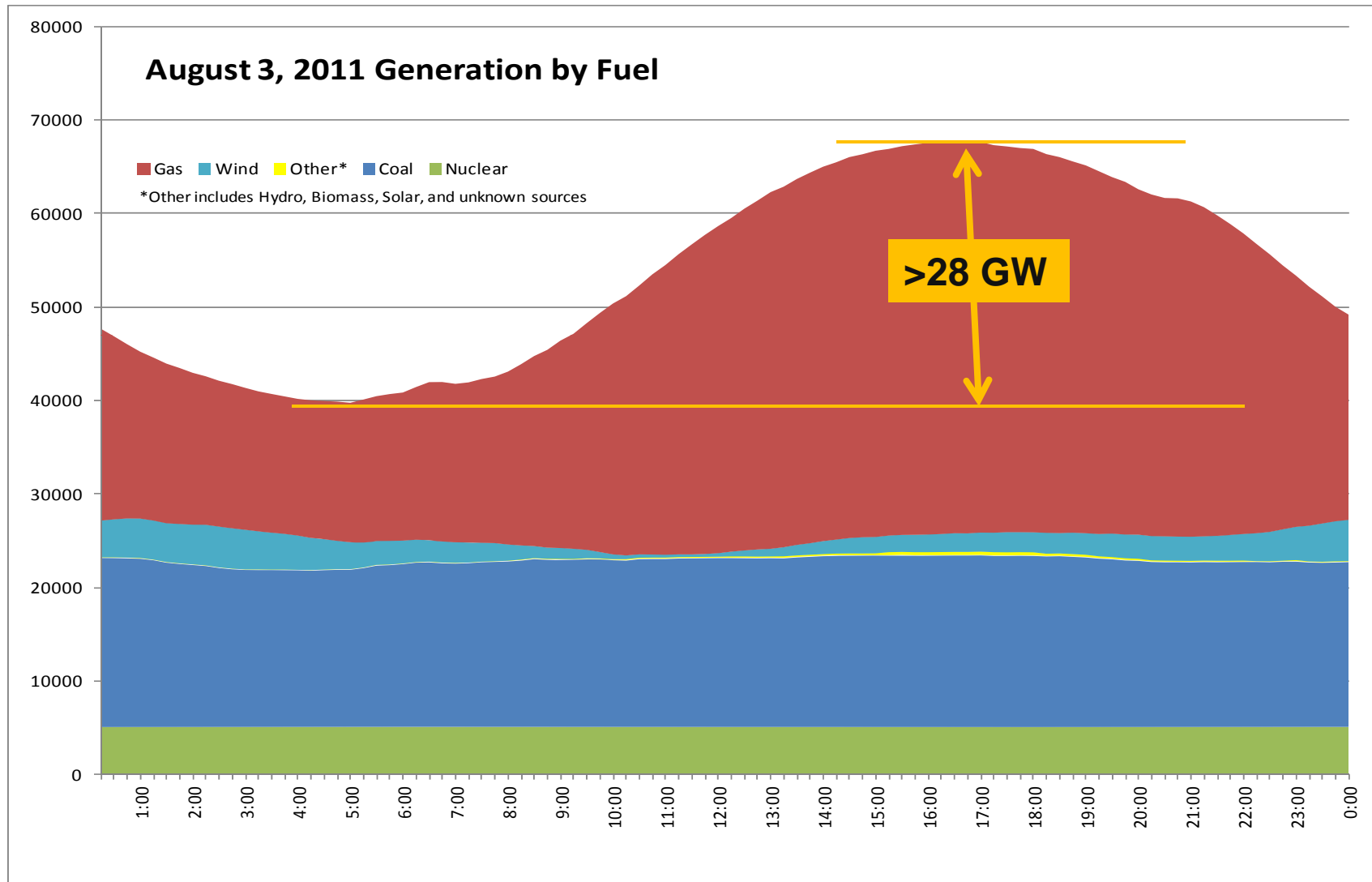
Wednesday  
March 9, 2011  
5:15 PM  
ERCOT Load: 31,262 MW  
Temperature in Dallas: 64°



Wed., Aug. 3, 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)

# Summer Peak Day Load Shape with Fuel Mix



# One more way of looking at ERCOT

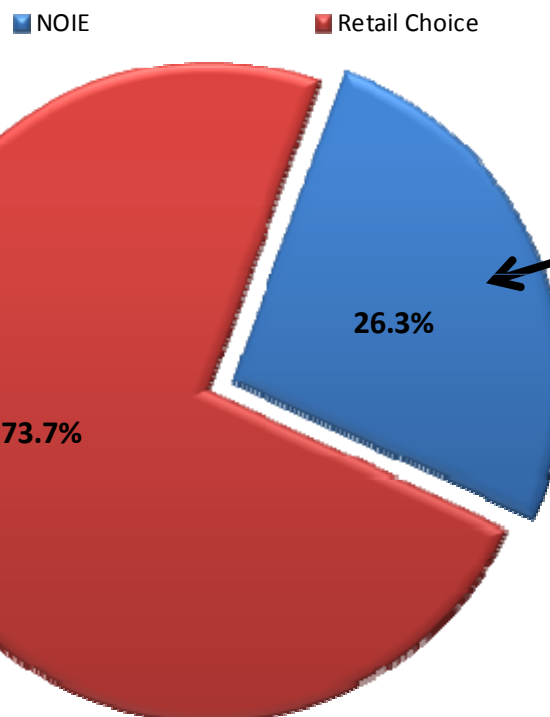
Dozens of REPs competing for residential and small commercial accounts

Mostly flat-price options including pre-paid, renewables

AMI deployment underway

'Utility' in the traditional sense is no longer a valid term

Competitive Choice vs. Muni/Co-op Load



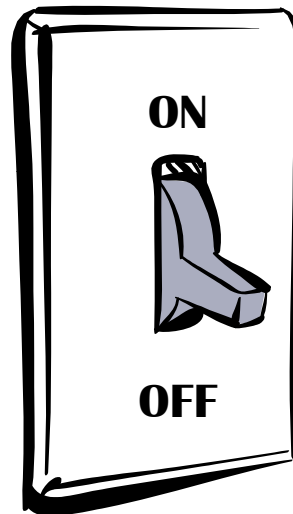
Muni's and co-ops are still vertically integrated

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

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

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

# Questions?



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