



ERCOT UPDATE

**SENATE BUSINESS AND COMMERCE
JULY 10, 2012**

**Trip Doggett
President & CEO
ERCOT**

WHAT TO EXPECT THIS SUMMER

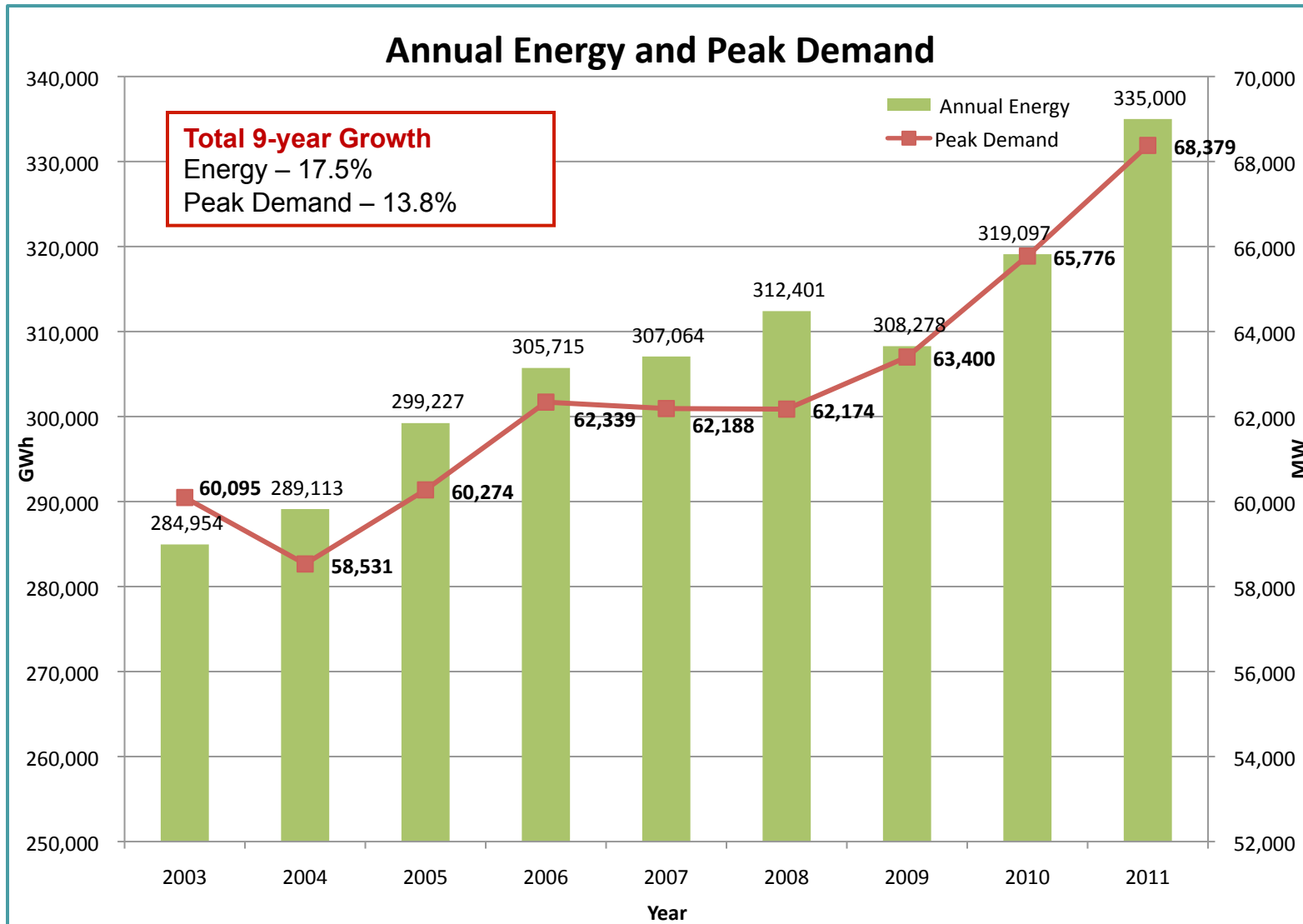
- **ERCOT expects tight reserves this summer. There is a significant chance that ERCOT will need to declare an Energy Emergency Alert (EEA) on multiple occasions during the summer of 2012. However, these EEA declarations are not likely to result in the need for rotating outages.**
- **If a higher-than-normal number of forced generation outages occur during a period of high demand, or if record-breaking weather conditions similar to last summer lead to even higher-than-expected peak demands, the ERCOT system is likely to have insufficient resources available to serve those demands. This insufficiency would result in the need for rotating outages to maintain the integrity of the system as a whole.**
- **Drought conditions have improved during the winter and spring on many river basins. Reservoir levels are not expected to drop below power plant physical intake limits during summer 2012, but potential risks exist under ongoing drought conditions.**

LAKE LEVELS UPDATE – 01 JUNE 2012

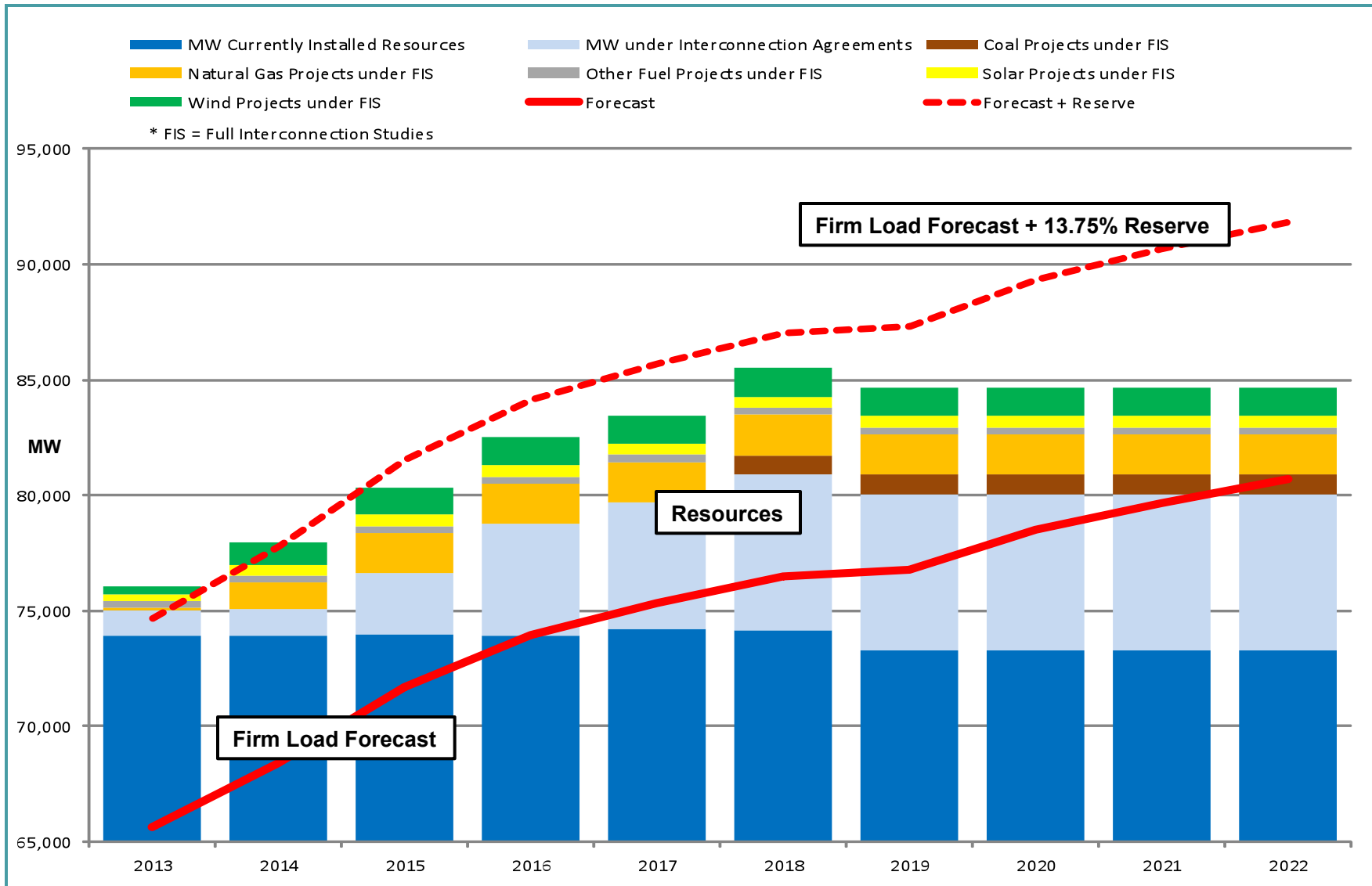
Surface Water & (MW)	*Level @ Full Conservation Pool	*Level on Jan 1, 2011	*Level on Oct 7, 2011	*Level on June 01, 2012
Lake Texana (56)	44.50	41.00	32.81	43.00
Bardwell Lake (312)	421.00	420.71	416.23	420.96
Lake Colorado City (407)	2,070.20	2057.33	2052.4	2051.46
Lake Ray Hubbard (916)	435.50	432.37	429.22	434.92
Lake Granbury (983)	693.00	691.90	686.27	691.70
Lake Houston (1016)	41.73	42.10	36.76	41.52
Twin Oaks Reservoir (1616)	400	398.87	398.27	400.32
Lake Limestone (1689)	363	359.03	354	362.15
Martin Lake (2425)	306	300.48	295.06	301.85

* In Feet above Mean Sea Level

ANNUAL ENERGY & PEAK DEMAND (2003-2011)



MAY 2012 CAPACITY, DEMAND AND RESERVES REPORT (CDR)



BRATTLE STUDY SCOPE

ERCOT commissioned *The Brattle Group* to address three questions:

1. Investors and their Investment Criteria

- Identify, describe, and rank the relevant factors that influence investment decisions made by the development and financial community related to new capacity additions, capacity retirements, and repowering projects in ERCOT.

2. Market Outlook for Investment and Resource Adequacy

- Evaluate the current drivers from both a wholesale and retail perspective that influence resource investment decisions in the ERCOT market.

3. Evaluation of Policy Options

- Provide suggestions for ways to enhance favorable investment outcomes for long-term resource adequacy in ERCOT.

BRATTLE STUDY FINDINGS & RECOMMENDATIONS

Final Report released on June 1, 2012

- New investment in ERCOT is impeded by low wholesale prices, low natural gas prices, and an efficient existing generation fleet
- ERCOT's current energy-only market is not likely to support sufficient investment to meet the resource adequacy target
- Reliability targets could be achieved with a significant increase in price-responsive demand – would likely take several years before a sufficient level of demand response could be achieved
- Based on large and uncertain gaps, either the market design needs to be adjusted or the reliability objectives revised
- Four policy options for attracting greater investment to support a higher reserve margins
 - Energy-only market with price adders
 - Energy-only market with backstop procurement
 - Resource adequacy requirements on load serving entities
 - Resource adequacy supported by a centralized forward capacity market
- Miscellaneous market design enhancements to better enable demand-side resources to participate, and to achieve efficient pricing during scarcity and non-scarcity conditions

RESOURCE ADEQUACY – ERCOT NEXT STEPS

Reserve Margin

- Examine the philosophy and reliability targets of other ISOs/RTOs
- Prepare a simplified explanation of the current process of Reserve Margin iterations and sensitivity analysis in ERCOT

PUC Workshop - July 27

- Prepare cost and schedule information to implement proposed changes to
 - Power Balance Penalty Curve
 - Offer Caps
- Discuss system changes, cost and schedule information to incorporate loads in SCED

RESOURCE ADEQUACY – ERCOT NEXT STEPS

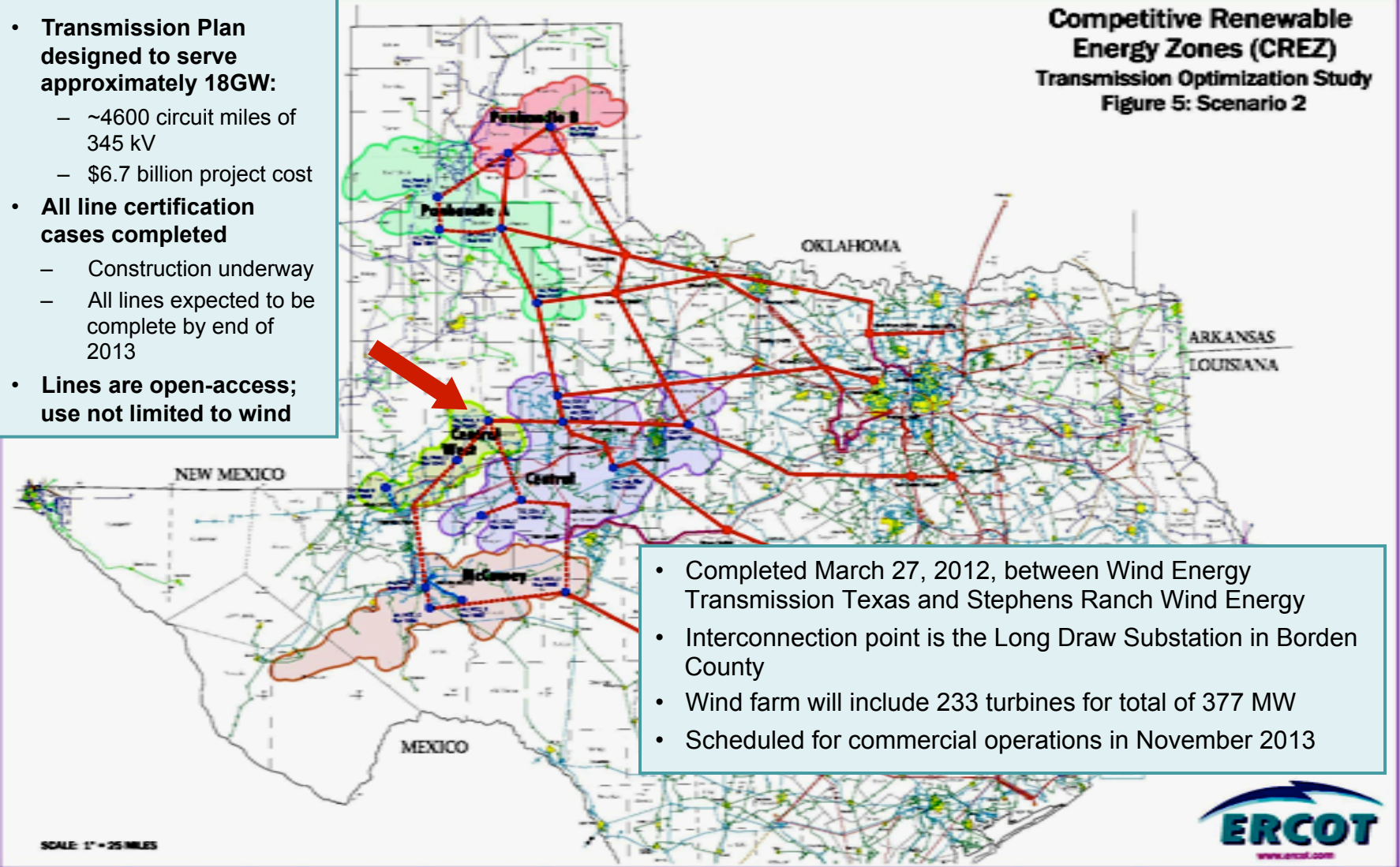
Expansion of Demand Response

- Maintain focus on implementation of
 - Indicative pricing functionality
 - 10 min ERS expansion including small generators
 - 30 min ERS pilot
- Identify barriers and challenges to allow participation of aggregated Load resources in ERCOT Markets
 - Qualify aggregated Loads to provide Ancillary Services
- Work with TDSPs to coordinate Load Management programs
- Work with REPs to promote retail market DR products
 - Evaluate opportunities to leverage AMI technology

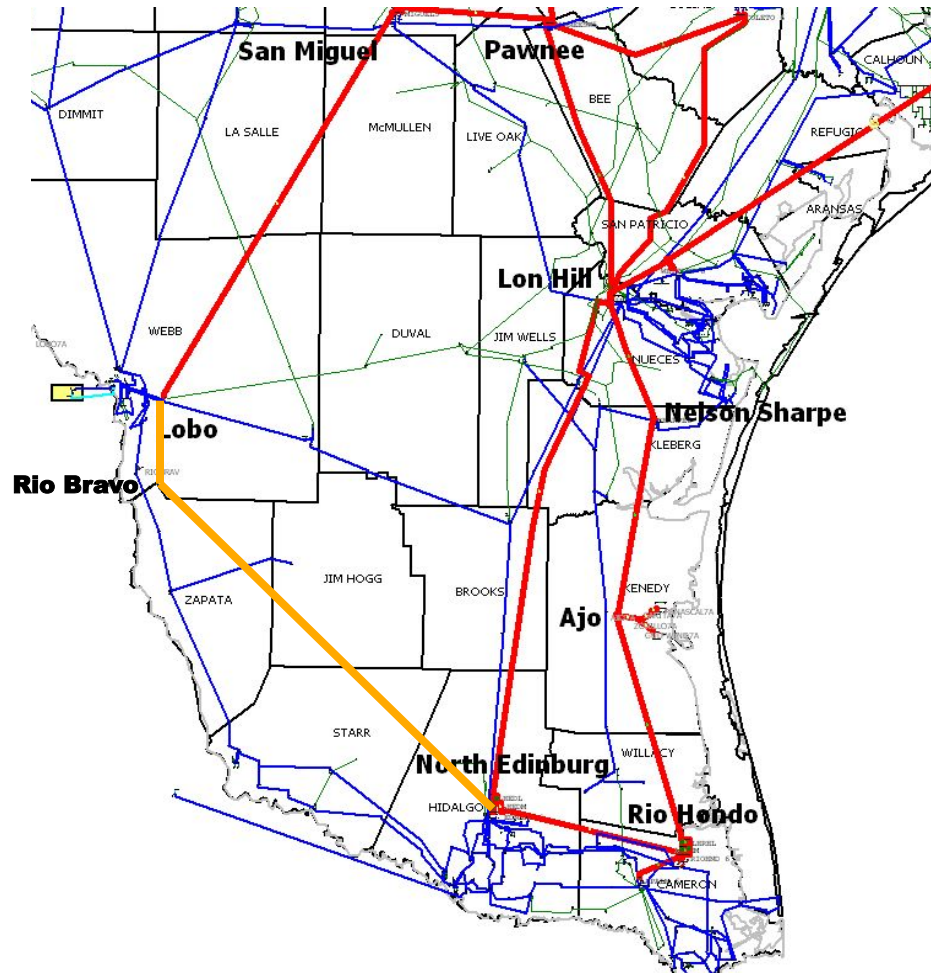
FIRST INTERCONNECTION AGREEMENT FOR A CREZ SUBSTATION

- **Transmission Plan designed to serve approximately 18GW:**
 - ~4600 circuit miles of 345 kV
 - \$6.7 billion project cost
- **All line certification cases completed**
 - Construction underway
 - All lines expected to be complete by end of 2013
- **Lines are open-access; use not limited to wind**

**Competitive Renewable Energy Zones (CREZ)
Transmission Optimization Study
Figure 5: Scenario 2**

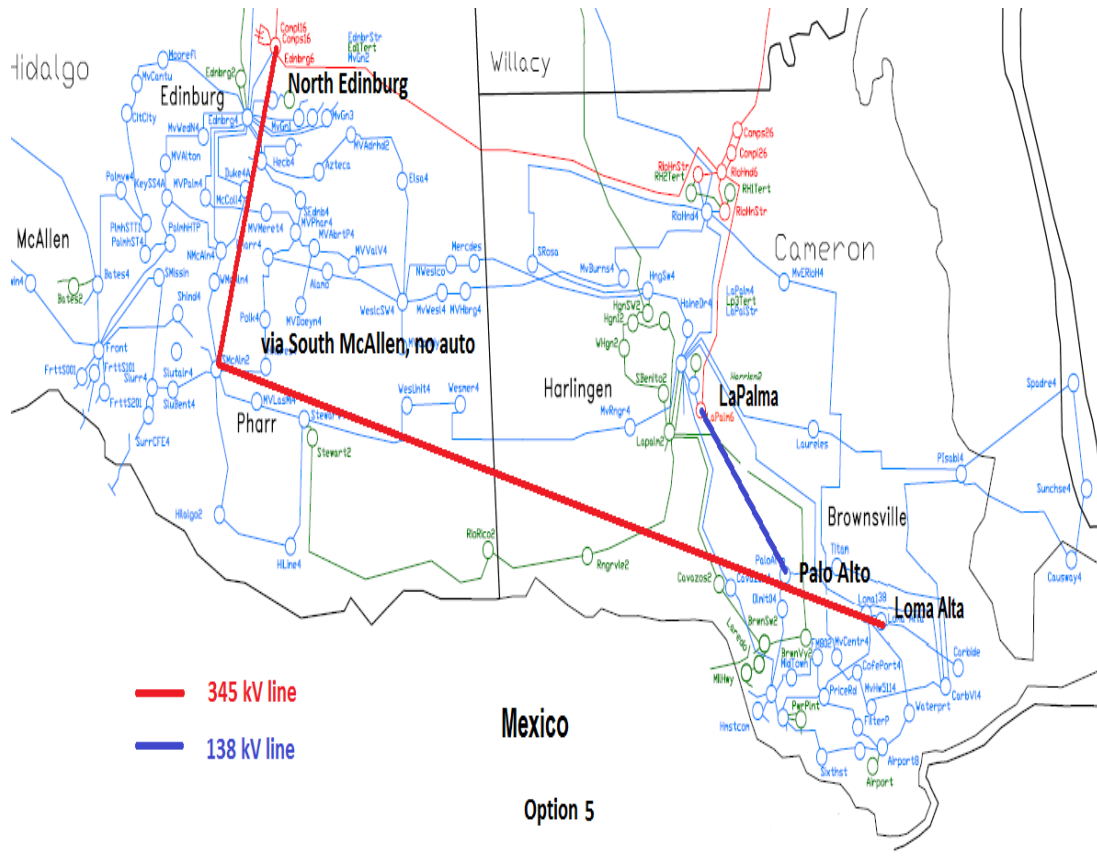


LOWER RIO GRANDE VALLEY PROJECT



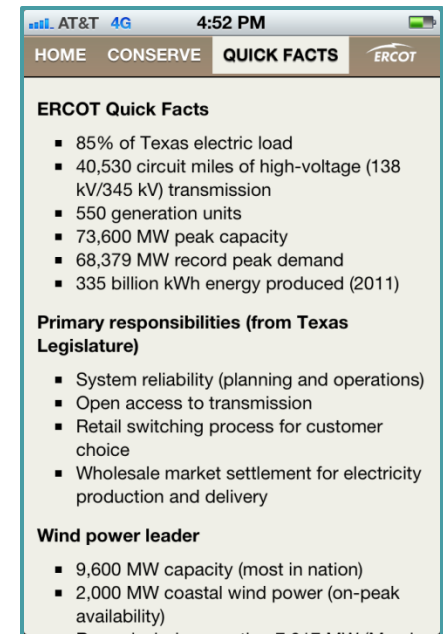
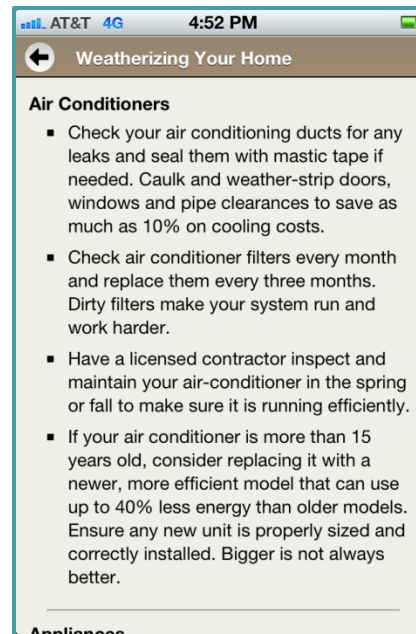
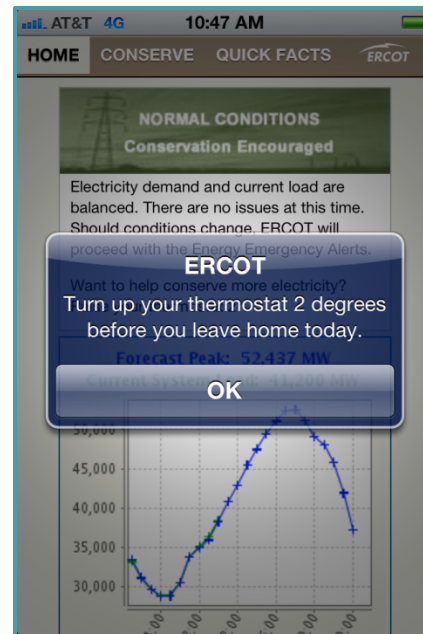
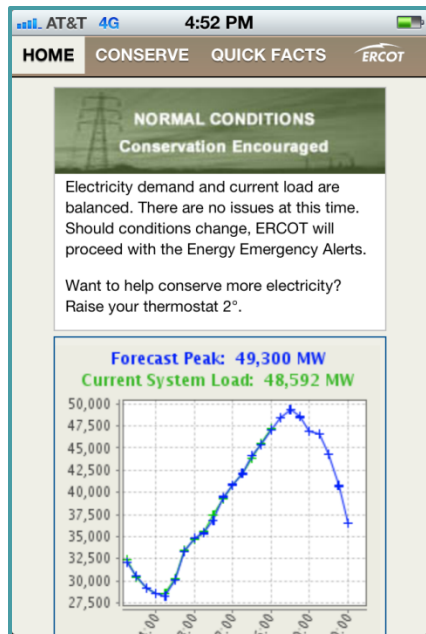
- **Driver – Reliability Need**
- **Project Components**
 - Lobo-Rio Bravo-N. Edinburg 163 mile single circuit 345 kV line on double circuit structures with 50% series compensation
 - Energized reconductor of Lon Hill-N. Edinburg and Lon Hill-Rio Hondo 345 kV lines
 - Reconfigure N. Edinburg and Rio Hondo series capacitors
- **Cost Estimate - \$527 million**
- **Expected in-service - 2016**

CROSS VALLEY 345kV PROJECT



- **Driver – Reliability Need**
- **Project Components:**
 - New La Palma-Palo Alto 138 kV line (~12 miles) with a rating of at least 215 MVA
 - New North Edinburg-Loma Alta 345 kV line (double circuit capable with one circuit in place) routed in proximity to the existing South McAllen Substation (~106.5 miles)
 - New 345kV bus at the Loma Alta station with one 345/138kV autotransformer
- **Cost estimate = \$274.7M**
- **Expected in-service - 2016**

OUTREACH: ERCOT MOBILE APP GIVES REAL TIME GRID UPDATES



ERCOT Mobile App

- iPhone and Android Phone users
- Pop up notifications
- Applications for first release
 - Conservation Spotlight
 - Load Forecast versus Actual graph
 - ERCOT Conservation Tips
 - ERCOT Quick Facts