Texas CREZ Policy and Transmission Expansion Update

Mark Dreyfus

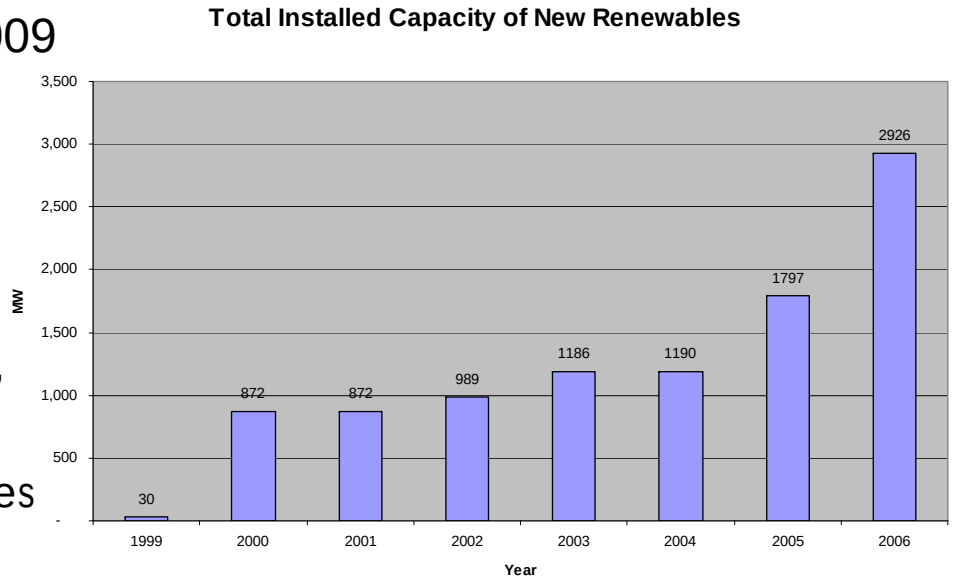
December 2, 2010

Texas Establishes a Renewable Energy Policy

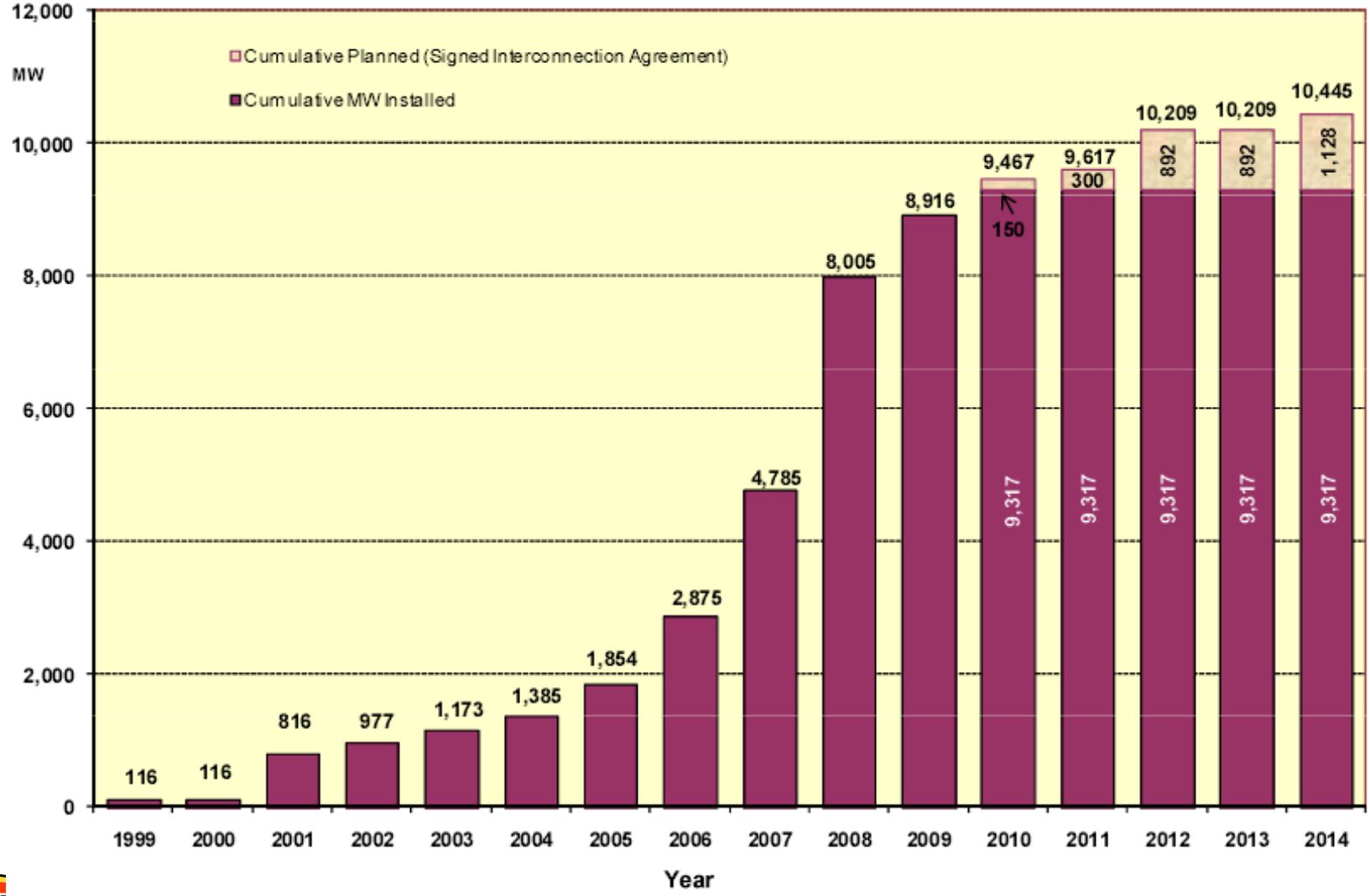
- Senate Bill 7 (1999)—comprehensive restructuring of the electric industry.
- Goal for Renewable Energy:
  - 2,000 MW of new renewable resources statewide by 2009.

Success Leads to Challenges

- **Success:** policy leads to rapid expansion:
  - 2001—755 MW in area around McCamey, Texas.
  - 2006—far exceeded the 2009 goal of 2,000 MW.
- **Challenges:**
  - Insufficient transmission capacity:
    - McCamey area.
    - ERCOT "chicken and egg" transmission policy (2003).
    - Local transmission upgrades completed (2003 – 2006); regional expansion illusive.
  - Cost: $400 million in congestion costs in 2006.



Current and Projected Wind Investment



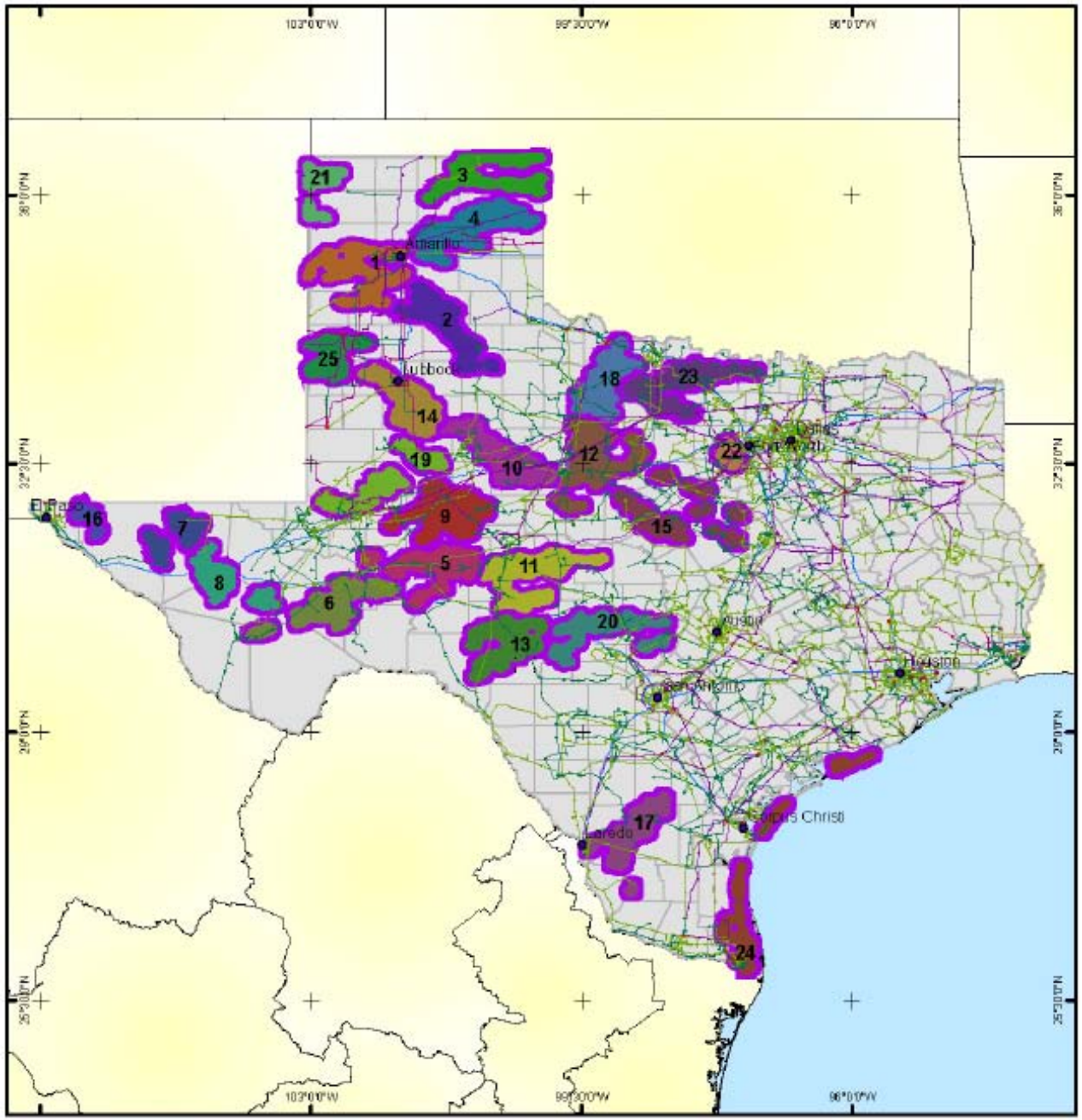
as of July 31, 2010

Additional Legislative Solutions: Senate Bill 20 (2005)

- **Expansion** of the Goal for Renewable Energy:
  - Mandate: 5,000 MW by 2015.
  - Target: 10,000 MW by 2025.
  - Non-wind Target: 500 MW.
- **Mechanism** for Expansion of Transmission to Meet the State's Goal:
  - Designate Competitive Renewables Energy Zones (CREZ) with sufficient potential for renewables development.
  - Develop plans for construction of cost-effective transmission from the CREZ.
- **1st Step:** ERCOT study December 2006.
  - Wind energy production potential locations.
  - Likely deliverability constraints.

Potential CREZ Examined by the PUC:

The “Cloud” Study



Regulatory Proceedings to Build the CREZ

- **Part One:** Choose the Clouds.
- **Part Two:** Choose the size of the transmission build out.
  - Option 1: 12k MW of wind in CREZ
  - Option 2: 18k MW of wind in CREZ
  - Option 3: 24k MW of wind in CREZ
- **Part Three:** Who gets to build the transmission lines?
  - Traditional wires utilities.
  - New entrants.

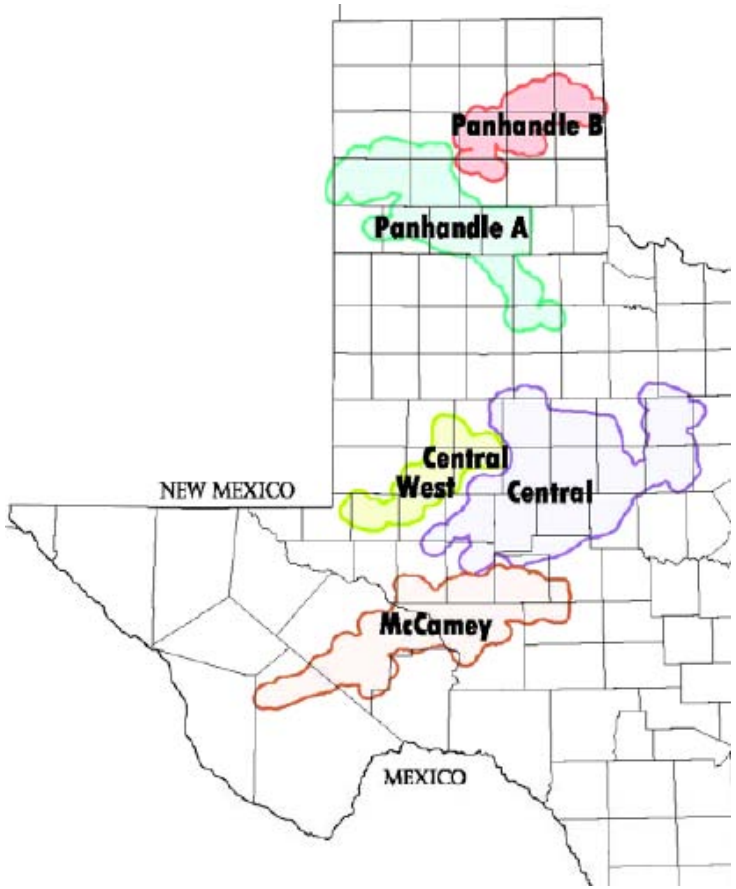
Issues the PUC Must Consider in Designating the CREZ

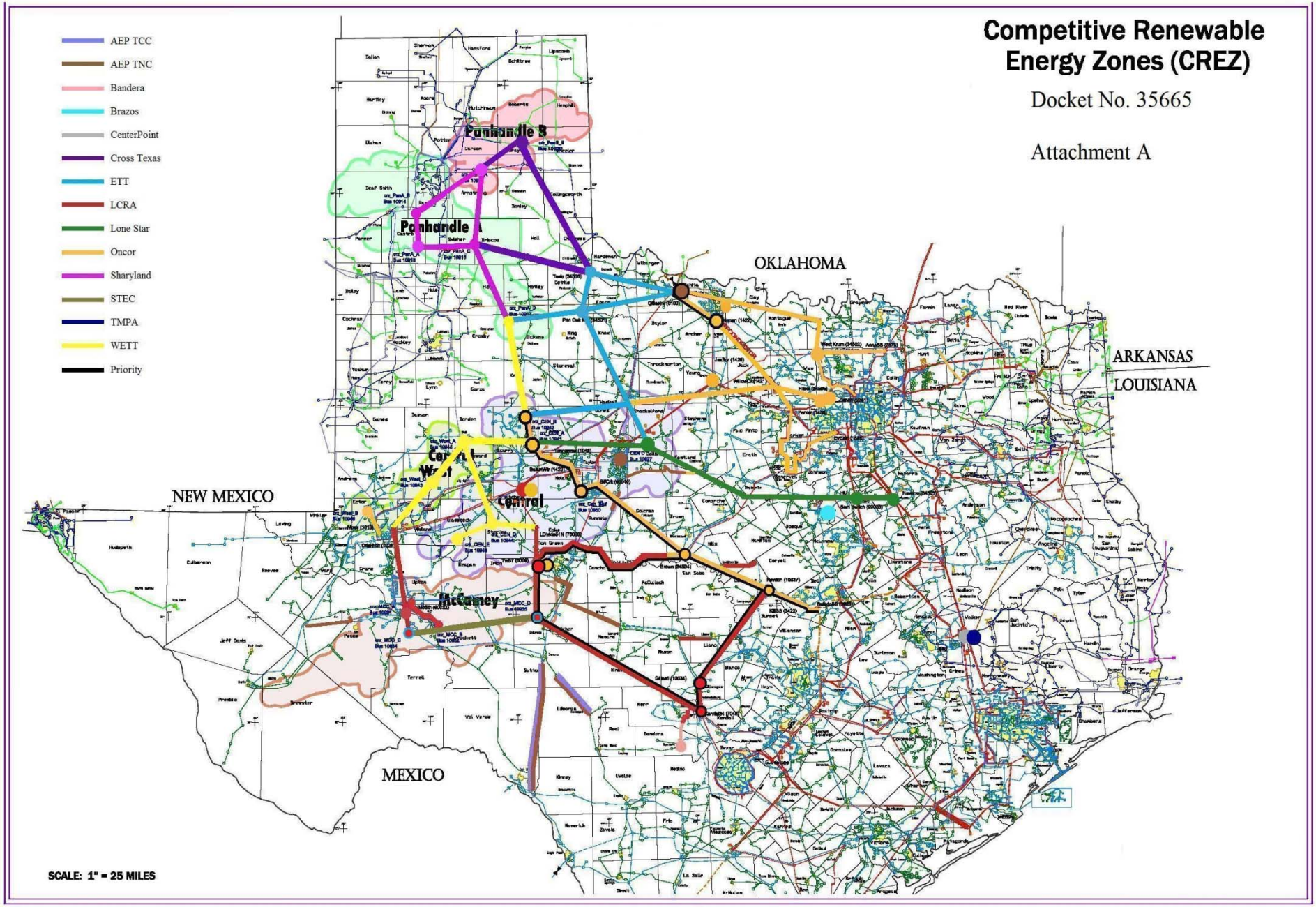
- **Suitability** of land area and wind capability.
- **Cost** of transmission needed.
- **Benefits** of energy produced in each potential zone.
- **Financial commitment** by developers.
  - Important in determining "necessity."

CREZ Selection

- **Part 1:** PUC designates 5 CREZ.
- **Part 2:** PUC proceeding to identify scope of transmission build out.
  - ERCOT identified transmission build out scenarios:
    - Scenario 1: 12,053 MW
    - Scenario 2: 18,456 MW
    - Scenario 3: 24,859 MW
  - The PUC approves Scenario 2:

    Transmission improvements identified in Scenario 2 "are necessary to deliver the energy generated by renewable resources in the CREZs, in a manner that is most beneficial and cost-effective to the customers."
  - Designated certain priority projects to relieve existing congestion.
- **Part 3:** PUC proceeding to designate transmission construction entities.
  - Mix of existing utilities and new entrants.




Competitive Renewable Energy Zones (CREZ)
Docket No. 35665
Attachment A
AEP TCC
AEP TNC
Bandera
Brazos
CenterPoint
Cross Texas
ETT
LCRA
Lone Star
Oncor
Sharyland
STEC
TMPA
WETT
Priority
Panhandle 3
Panhandle
OKLAHOMA
ARKANSAS
LOUISIANA
NEW MEXICO
Central
McCamey
MEXICO
SCALE: 1" = 25 MILES

CREZ Costs

- Original CREZ transmission cost estimate: $5 billion (through 2013).
  - ERCOT 5-year plan: $8.2 Billion.
- CCN cases underway at PUC.
- Final expected costs?
  - Routing challenges.
  - Construction materials.
  - Economic downturn.
  - Will all lines be built?
    - Gillespie to Newton—**Cancelled**
    - Oncor Connector?
    - Panhandle uncertainties?

Who Pays for CREZ Construction?

- Transmission cost allocation:
  - Specified in S.B. 7 and PUC rules.
  - "Postage Stamp": Transmission costs pooled and allocated across entire ERCOT region.
    - Four month "coincident peak" (4CP) allocation.
  - Austin Energy share—4 percent (+/-).
    - $50 million annually.
    - Passed through to customers dollar-for-dollar.

Recovery of CREZ Costs

- Challenge for AE:
  - Costs allocated to AE by PUC formula.
  - No mechanism to recover these incremental costs.
  - Other companies have adjustment mechanisms already in place.
    - Transmission Cost Recovery Factor (TCRF)
    - "Regulatory" charge
- Answer: Transmission Service Adjustment Rider (TSAR)
  - September 2010: Approved by Council.
  - November 2010: First appeared on customer bills.

Computation of the TSAR

- **Cost:** Estimate total incremental transmission cost allocation to AE.
- **Allocation:** Follow 4CP allocation methodology.
  - Look at actual hours of ERCOT 4CP.
  - Calculate share of AE's load consumed by each customer class—based on load research data.
- **Rate:**
  - Use load forecast to estimate usage by class.
  - Calculate the rate for each class based on allocation and usage.
    - Billed based on kW for all demand customers.
    - Billed on kWh for residential and small commercial.
  - True up each year to insure no over or under collection.
  - LTC customers exempt through contract term.
- **TSAR collects exactly the incremental transmission costs allocated per PUC formula!**

When Will CREZ Costs be Paid Off?

- CREZ costs incurred for life of asset.
  - Annual carrying cost of transmission investments: typically assume16% of capital cost.
    - Return on investment
    - O & M expense
    - Depreciation
    - Upgrades and replacements
- CREZ costs incorporated into the transmission utility's rates and allocated across ERCOT.
  - Charges stay in place as long as utility's rates stay in place.