Sharyland Utilities

Hunt Power

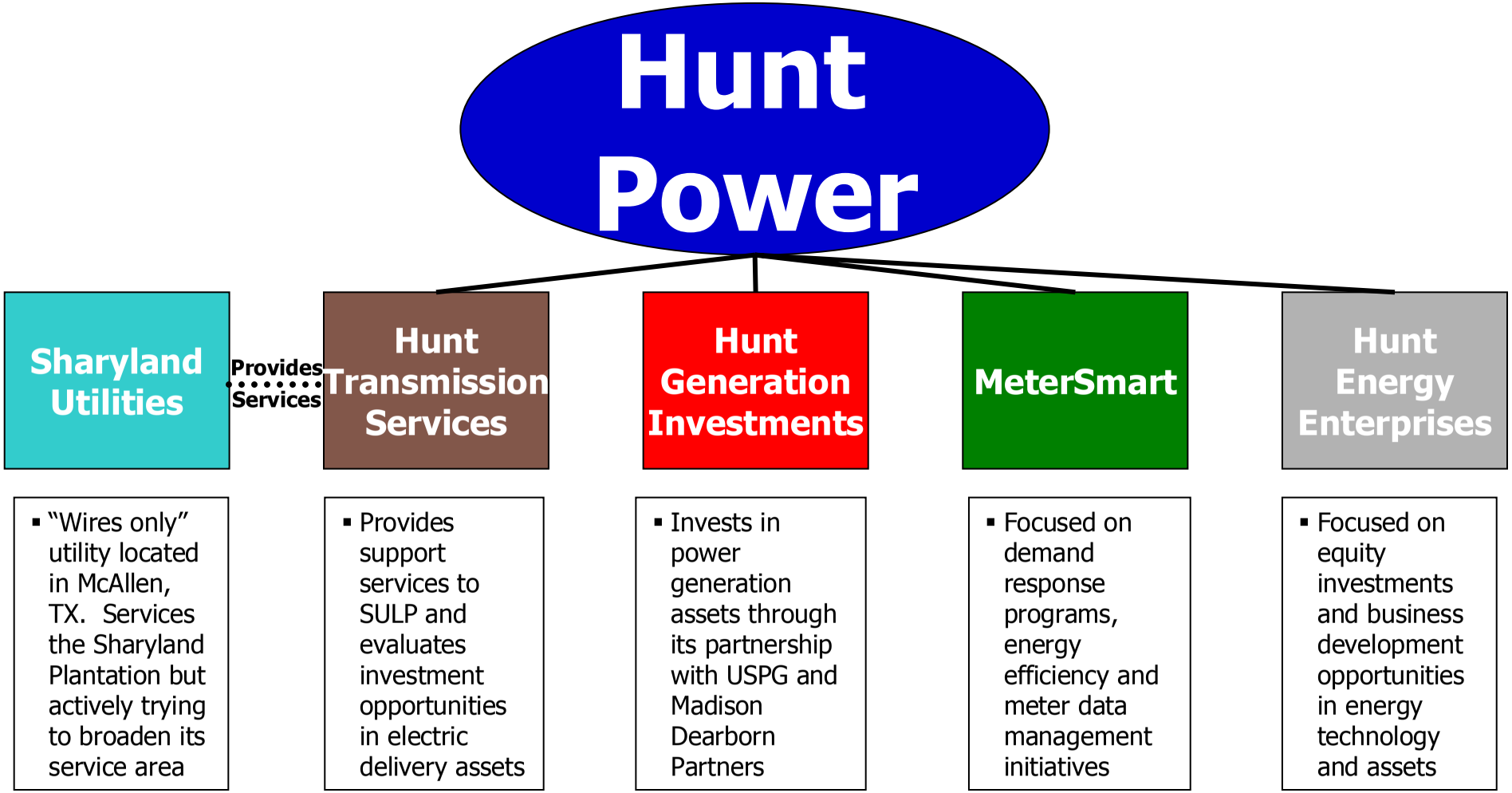
# Enabling Renewable Energy With A Robust Grid

**Pat Wood, III**

**WIREC Trade Show**

March 6 2008

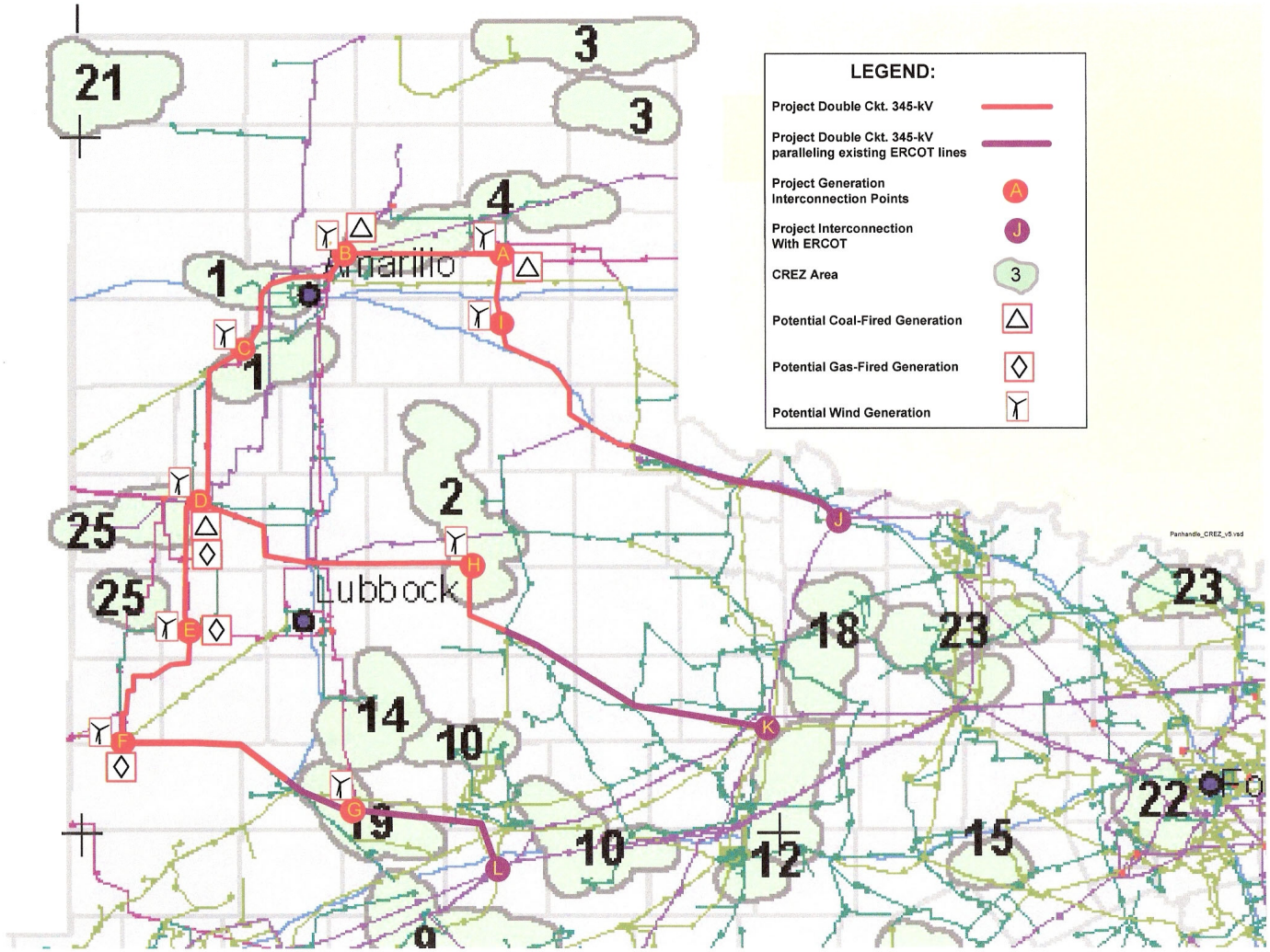
# Hunt Power Structure



# What Renewables Need

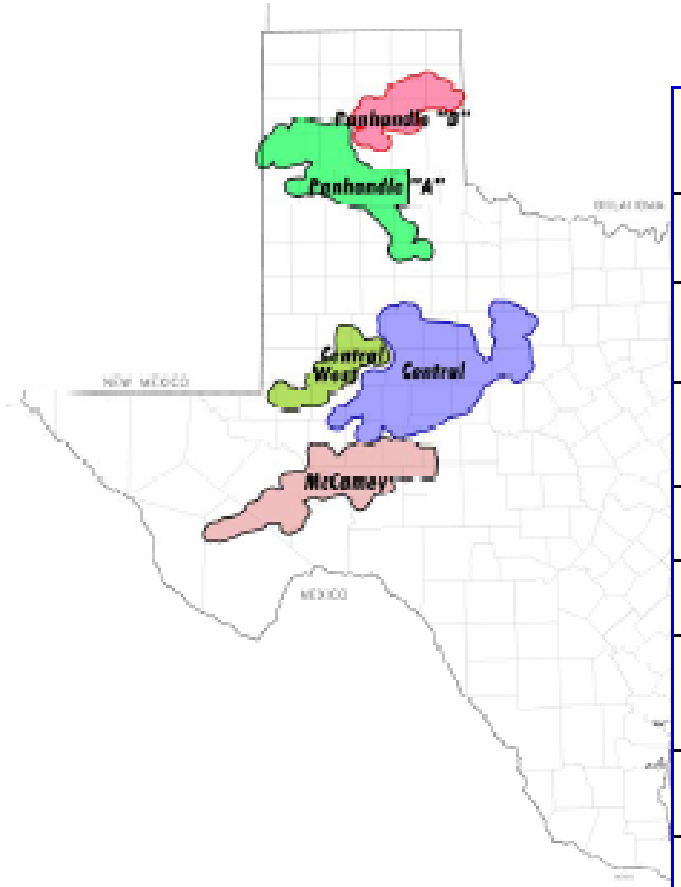
- **Robust power transmission grid**
- **Regional energy market/pool to spill into or buy from**

# Panhandle Loop Project



# Texas CREZ Process

## Designated Zones and Scenario Wind Levels




| Capacity of New CREZ Wind by Scenario (MW) | | | | |
|---|---|---|---|---|
| Wind Zone | Scen. 1 | Scen. 2 | Scen. 3 | Scen. 4 |
| Panhandle A | 1,422 | 3,191 | 4,960 | 6,660 |
| Panhandle B | 1,067 | 2,393 | 3,720 | 0 |
| McCamey | 829 | 1,859 | 2,890 | 3,190 |
| Central | 1,358 | 3,047 | 4,735 | 5,615 |
| Central West | 474 | 1,063 | 1,651 | 2,051 |
| Total* | 12,053 | 18,456 | 24,859 | 24,419 |

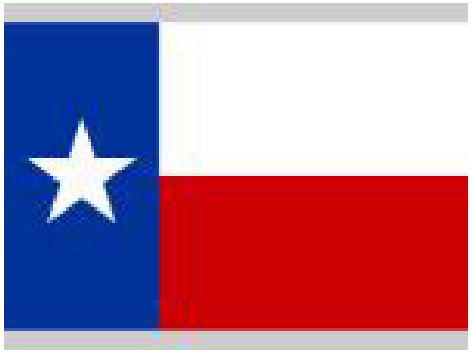
* Assumes 6,903 MW of existing wind capacity

# Objectives of the Panhandle Loop Project

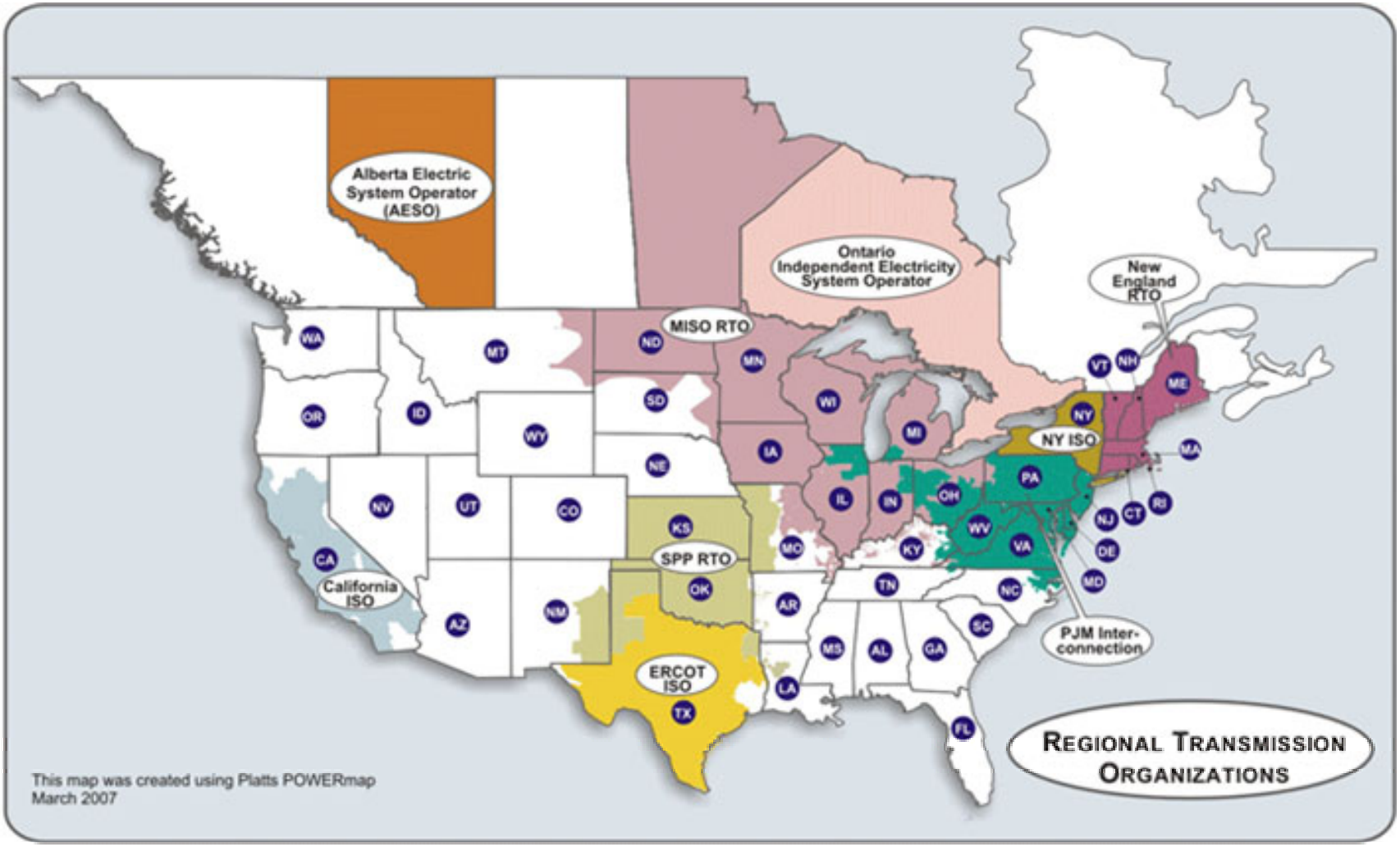
- Develop Texas' best wind resources
- Integrate new fossil generation
- Meet Texas' future power demands
- Energize rural economy

# Texas Experience

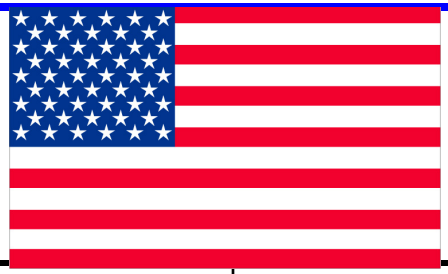
- Continuous Grid expansions since 1999
- Single Regulator for rates and permitting
- Clear Transmission rate recovery
- Bipartisan political commitment to robust renewable development
- Open wholesale and retail markets



# Power Market Structure

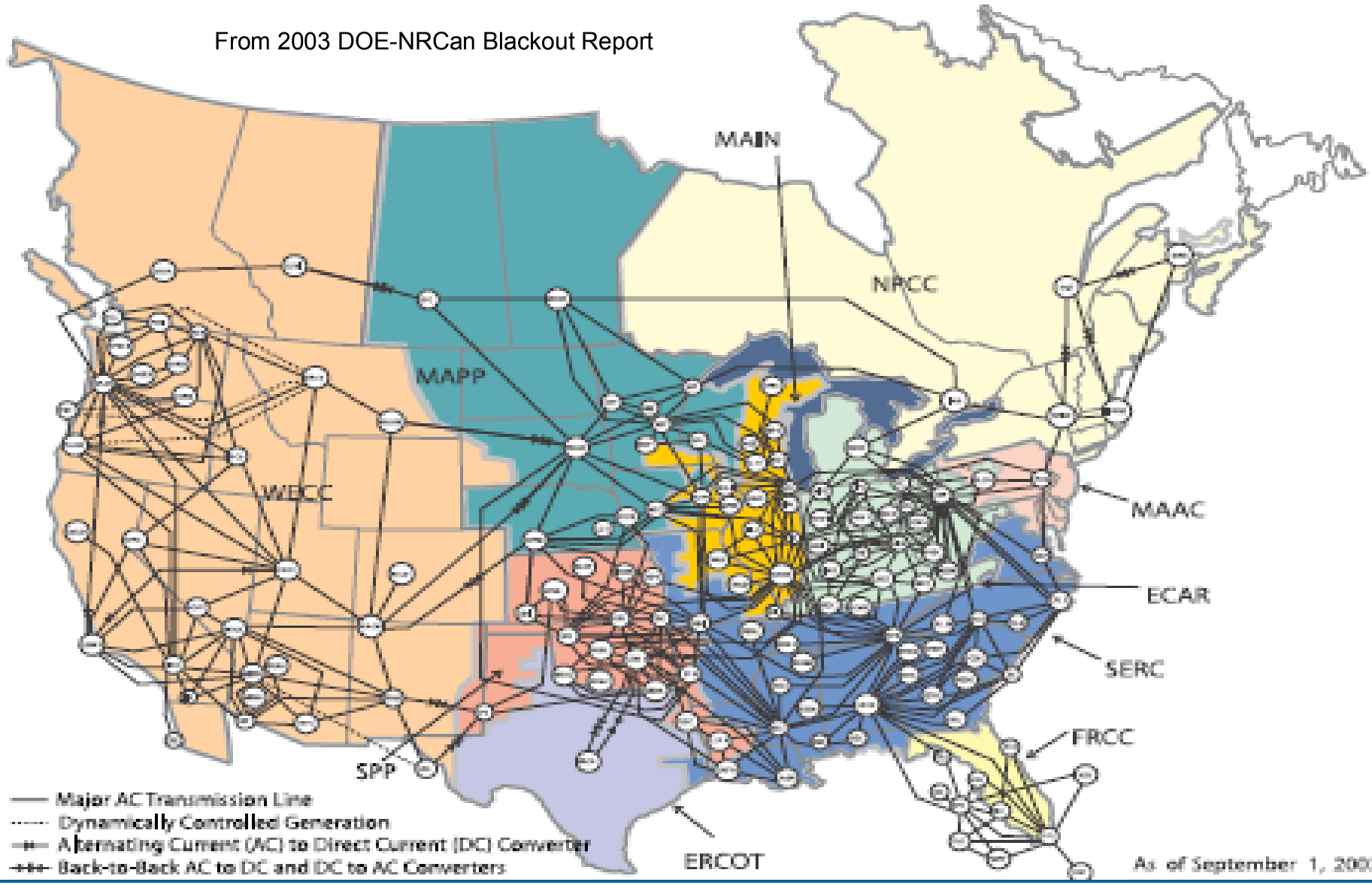


# Federal Experience



| RTO world | Non-RTO world |
|---|---|
| Balancing energy markets | Imbalance penalties |
| Region-wide rate tariffs | Pancaked utility rates |
| Financial transmission rights | Physical transmission rights |
| Regional transmission plan | Lack of planning/price policy |
| Large control areas | Small control areas |

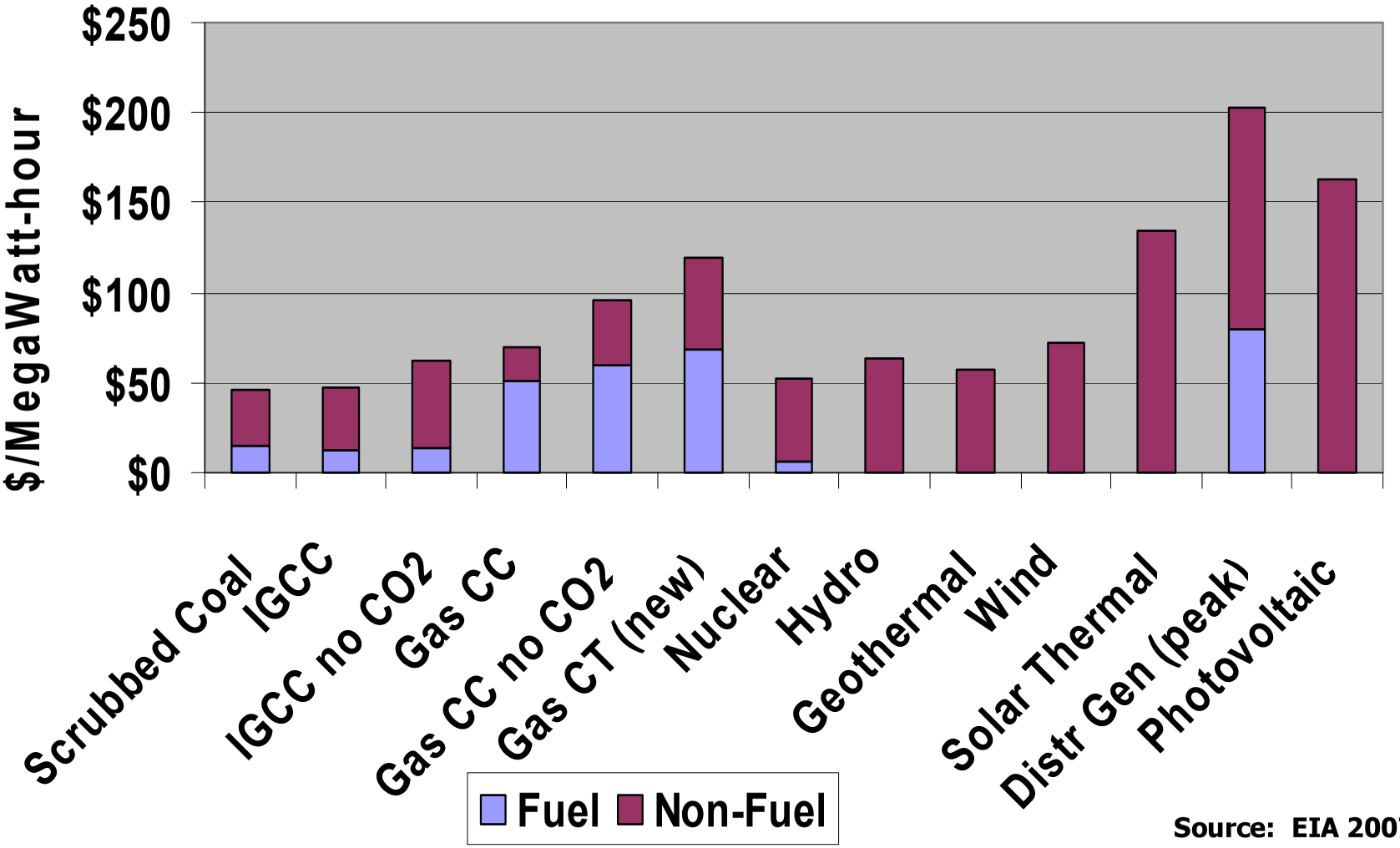
# 140 Control Areas Today



# The Problem Is Regulatory, NOT Physical!

# Can We Find the Pot of Gold?

# Relative Power Costs




Source: EIA 2007 Outlook