



## **Texas Generation Development Paralysis**

by

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## West Texas: Transmission Congestion

- \* Over 40,000 MW of wind in the pipeline until 2020
- \* Currently over 5,000 MW of wind installed
- \* Congestion causing curtailment or higher prices
- \* Solar projects may go in on top of wind

## LMP: Locational Marginal Pricing (Nodal Market)

- \* New transmission pricing goes into effect 2009
- \* Will charge higher prices for congestion
- \* Risk causing development paralysis
- \* Too many unknowns; lenders cannot calculate so reluctant to lend



Senate Bill 7: 2,880 MW from RE by 2009

- \* Already met
- \* No more need for IOUs to acquire more RE
- \* SB 20 changed goal to 5,990 MW (nearly met already)
- \* Need \$3 billion in investment in transmission

Pricing for Geothermal:

- \* Need to compete with current generation
- \* No federal tax investment credits; if no natural gas used, may get PTCs

Size:

- \* Capacity must be 1+ MW to even be scheduled on ERCOT

Carbon Tax:

- \* When this occurs, playing field may shift favorably



Development paralysis may continue past 2009 because of:

LMP initiation by ERCOT; Transmission congestion

Pending federal carbon tax legislation

Potential recession (and its effects on demand)

Bank credit crunch unwinding

Soaring prices for cement, steel, aluminum, copper, etc.

**On a Positive Note:**

Geothermal is smaller investment

Geothermal is dispatchable and base load

Geothermal emits no carbon

Easier to fund, permit, build, & sell—if prices are comparable