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## **Natural Gas/Electric Coordination**

*Trip Doggett*  
President & CEO  
ERCOT

FERC Open Meeting  
October 17, 2013

# ERCOT Recognizes the Importance of Coordination with the Gas Industry and Evaluation of Supply Risks

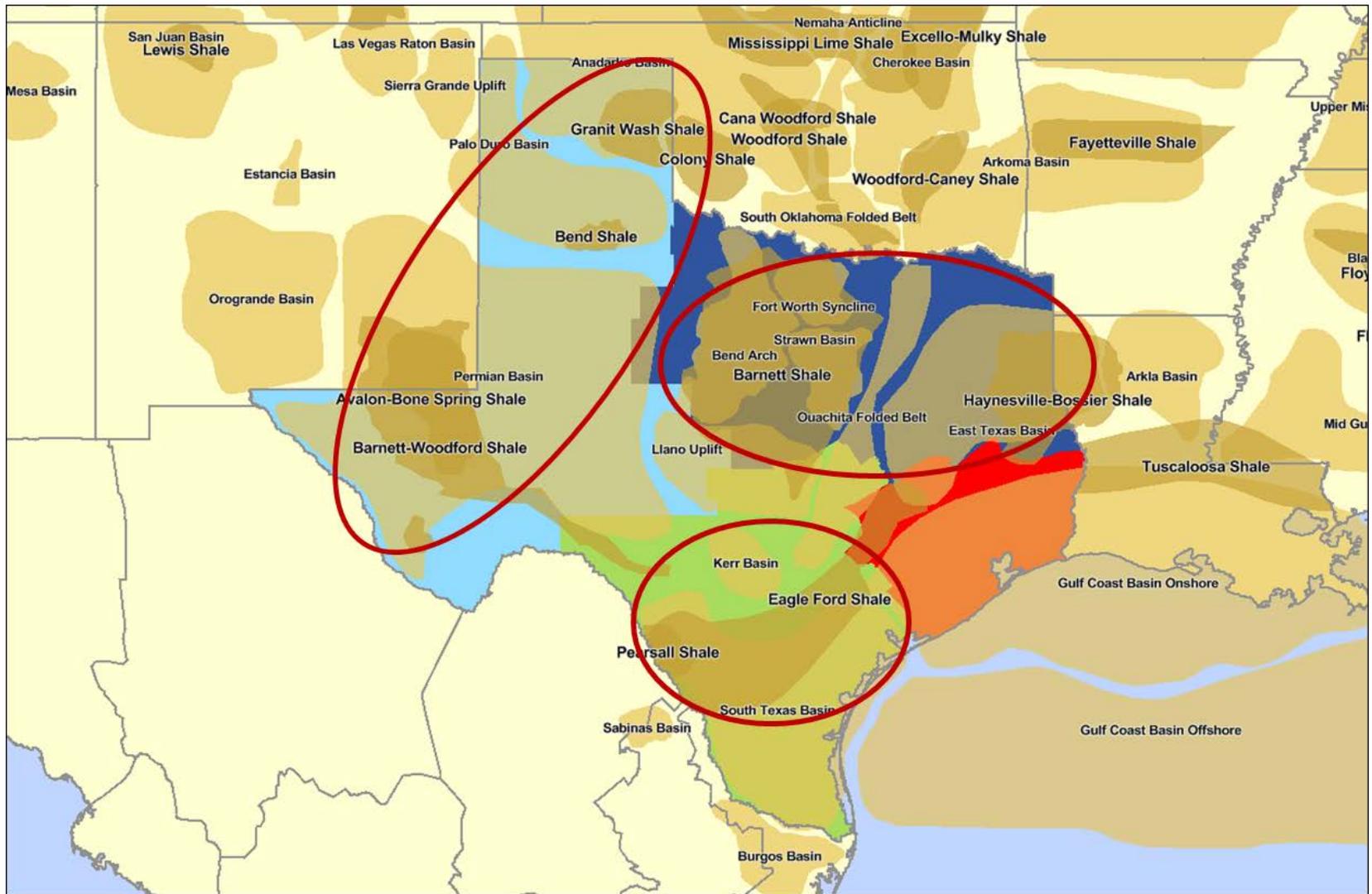
- **ERCOT has engaged gas suppliers and pipelines in development of its Black Start plans and generation procurement**
  - ERCOT has developed non-disclosure agreements to facilitate the exchange of specific electric and gas infrastructure information to enhance the effectiveness of the ERCOT Black Start program
  - Electric supply needs for gas facilities that supply fuel for Black Start and Next Start generators will be included in the Black Start plans.
- **ERCOT participates in the Texas Energy Reliability Council (TERC) which consists of gas suppliers, pipelines, electric generators and large customers. TERC meets at least twice annually and by conference call whenever there is a potential for significant gas supply disruption**
- **ERCOT engaged a consultant to evaluate both short term and long term sufficiency of gas supplies and pipeline capacity to generators in ERCOT**

# Consultant Conclusions and Observations

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- **Sufficient natural gas infrastructure exists to meet current power generation needs within ERCOT**
- **Natural gas production growth in Texas from unconventional shale production is expected to more than offset declines in conventional onshore and offshore supplies**
- **There is increased natural gas pipeline and midstream infrastructure development in Texas due to increasing Eagle Ford Shale production and the need to access processing capacity to reach intra-state and Mexican export markets**
- **Sufficient existing natural gas storage capacity exists to meet the seasonal fluctuations of gas demand in Texas**

# Texas benefits from multiple natural gas production areas spread across the state



# Analysis of the sufficiency of natural gas infrastructure under Base Case & different supply-demand stress scenarios

Scenario	Key Observations
Base Case	Sufficient natural gas infrastructure exists to meet the needs of power generation in each ERCOT transmission zone
Cold Texas	Even with additional gas demand in each ERCOT Zone, sufficient natural gas supply and available pipeline capacity exist
Cold Texas & Outside Markets	Sufficient natural gas supply and available pipeline capacity exist, albeit at higher prices to meet the additional gas demand from outside markets
Tropical Cyclone Supply Disruption	Limited impact on regional Texas market prices/basis Sufficient supply and pipeline infrastructure exists to meet the peak summer power generation gas demand
Pipeline Disruption	Limited impact on regional Texas market prices/basis

# Summer and Fall 2013

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- **Generators in ERCOT are required by Protocols to notify ERCOT of any limitations in their fuel supply**
- **Two isolated incidents of fuel supply disruptions:**
  - July 21 – Gas supply to one plant interrupted due to storm during pipeline inspection
  - Sept 3 – Gas supply to one plant interrupted due to problems during a pipeline inspection
- **ERCOT is aware of no potential problems with gas supply to generators this winter and is not planning on taking any specific actions beyond its existing rules and interactions with relevant gas industry participants**
- **TERC will meet in November to review the winter outlook**