



Presentation to House Committee on State Affairs – Interim Charge 3

May 12, 2010

Trip Doggett

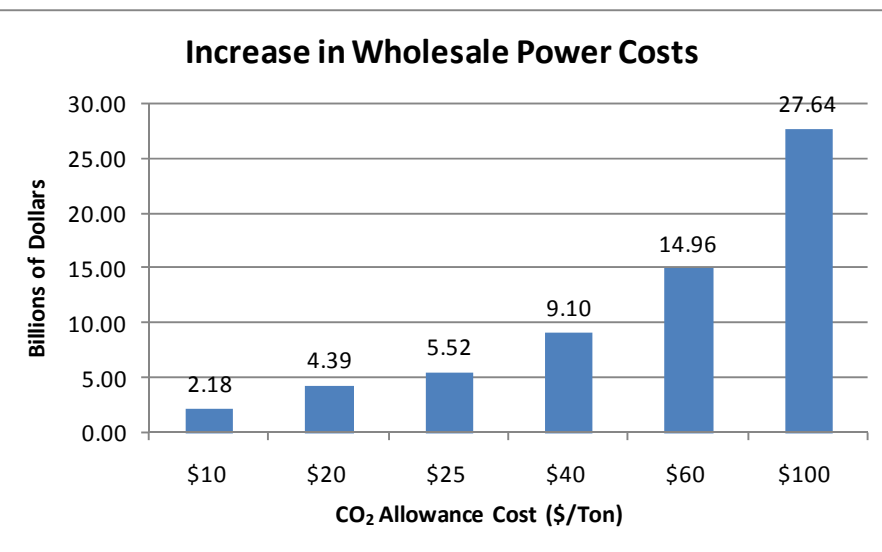
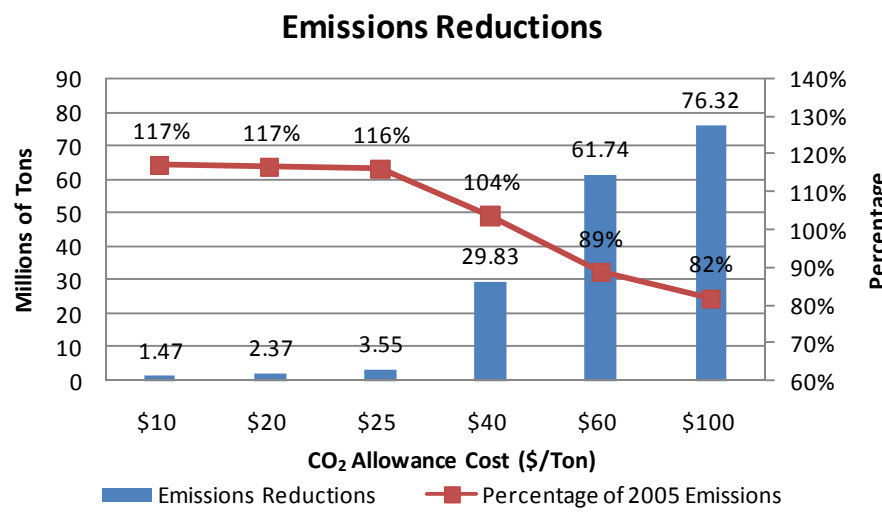
Interim President and Chief Executive Officer
The Electric Reliability Council of Texas

Scope of Analysis

- **In 2009, at the PUC's direction, ERCOT conducted an "analysis of the likely effects of proposed climate change legislation on electricity prices in the ERCOT market."**
- **Study was focused on the near-term impacts of potential legislation.**
- **Longer-term effects, such as changes in the installed generation capacity and changes to the transmission system due to altered generation dispatch as a result of the imposition of carbon allowance costs were not evaluated.**
- **Analysis assumed that the goals of the legislation must be met directly by reductions in CO₂ emissions by ERCOT-region generation.**
- **Study does not include any market-driven bidding behavior or scarcity pricing, and the wholesale prices and wholesale market costs reported from the simulations are also cost-based as a result.**

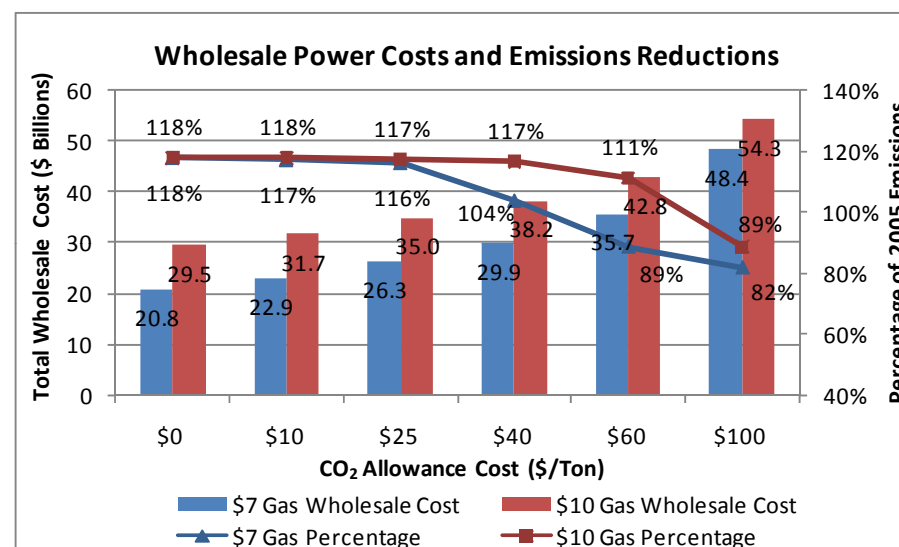
Effects at \$7/MMBtu natural gas prices

- \$7/MMBtu natural gas prices
- Expected load levels
- Existing and committed level of wind and other generation
- Objective: to reduce CO₂ emissions from electric generation in ERCOT to 2005 levels by 2013
- CO₂ allowance costs must rise to between \$40 and \$60 per ton
- Annual increase in wholesale power costs of approximately \$10 billion
- **Increase in typical consumer's monthly bill of \$27**



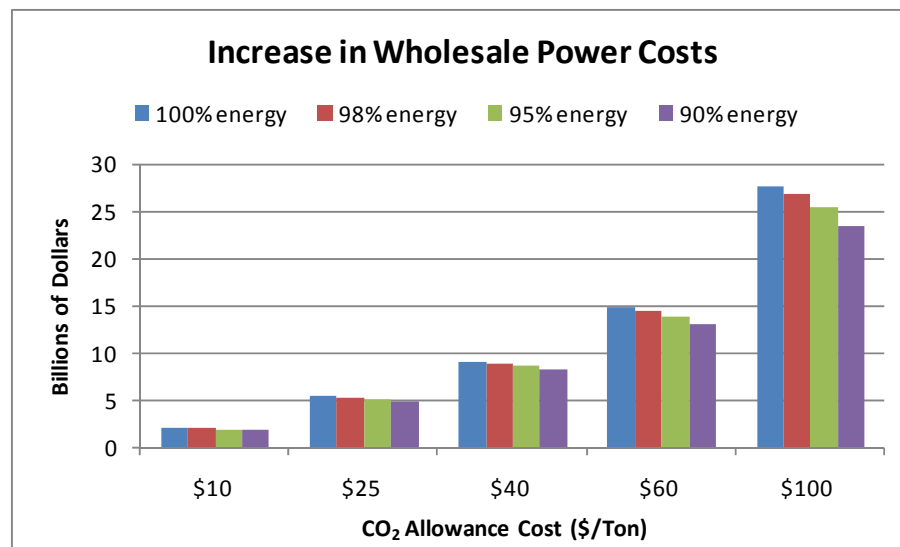
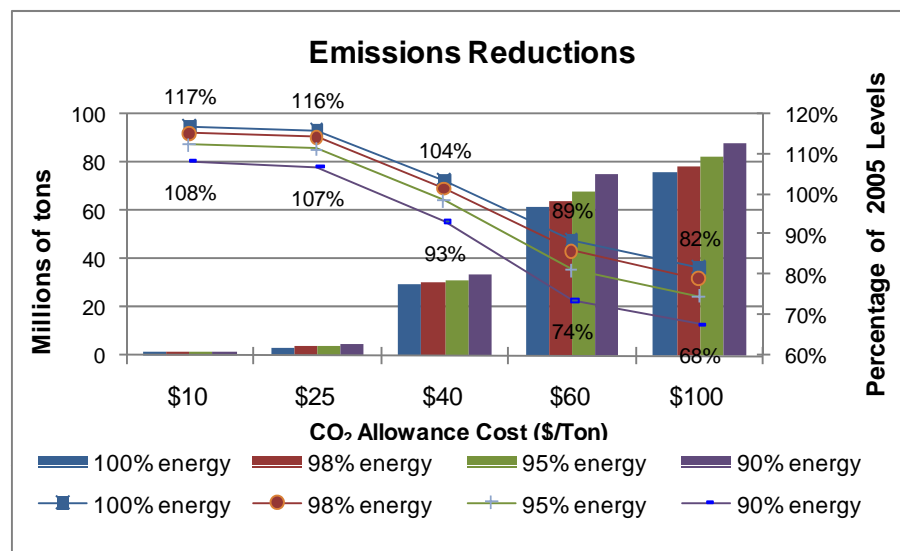
Effects at \$10/MMBtu natural gas prices

- \$10/MMBtu natural gas prices
- Expected load levels
- Existing and committed level of wind and other generation
- Wholesale power costs are higher with higher gas prices at all CO₂ allowance prices
- Higher gas prices require a higher allowance price for CO₂ emissions to be reduced below 2005 levels
- Annual increase in wholesale power costs of approximately \$20 billion
- **Increase in typical consumer's monthly bill of \$54**



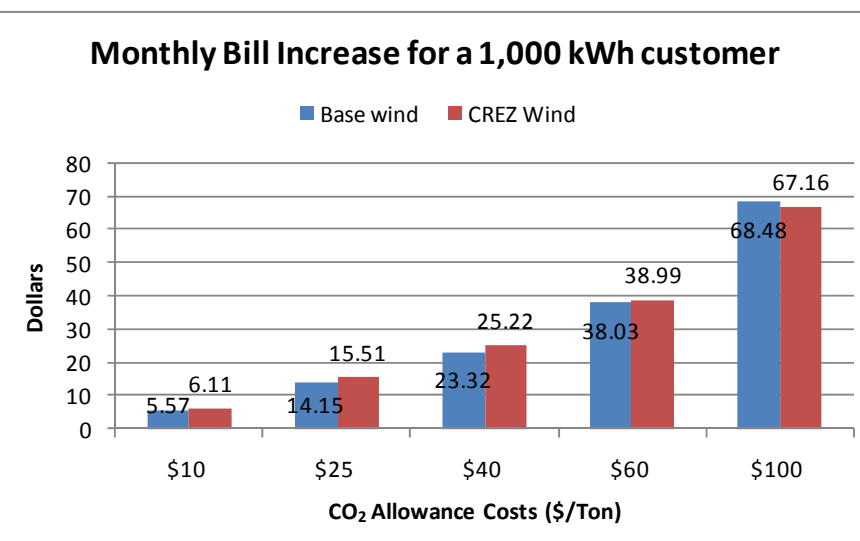
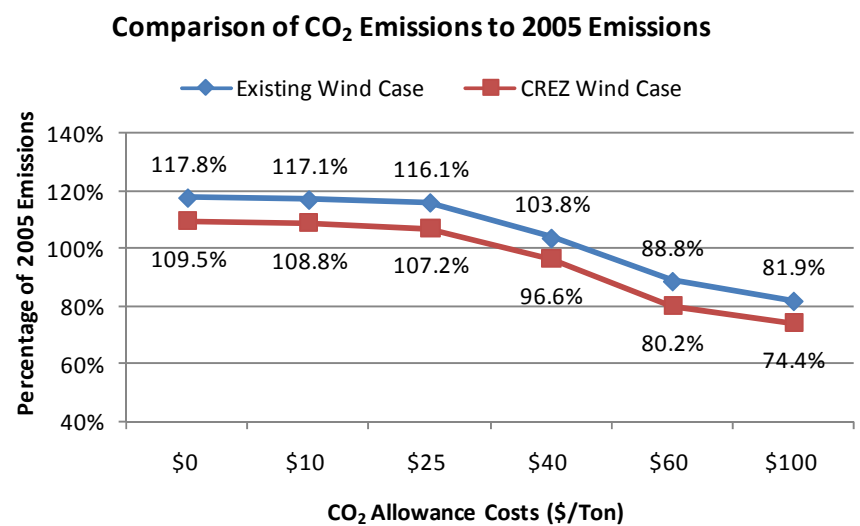
Effects with reduced energy use

- \$7/MMBtu natural gas prices
- Load reduced by stated percentage
- Existing and committed level of wind and other generation
- Objective: to reduce CO₂ emissions from electric generation in ERCOT to 2005 levels by 2013
- If total energy use was reduced by 10%, CO₂ allowance costs must rise to between \$25 and \$40 per ton
- Annual increase in wholesale power costs of approximately \$7 billion
- **Increase in typical consumer's monthly bill of \$17**



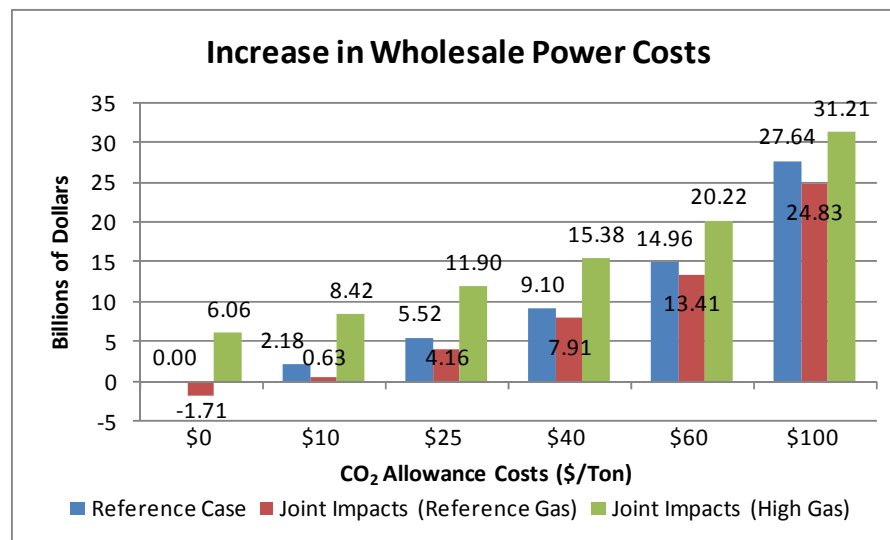
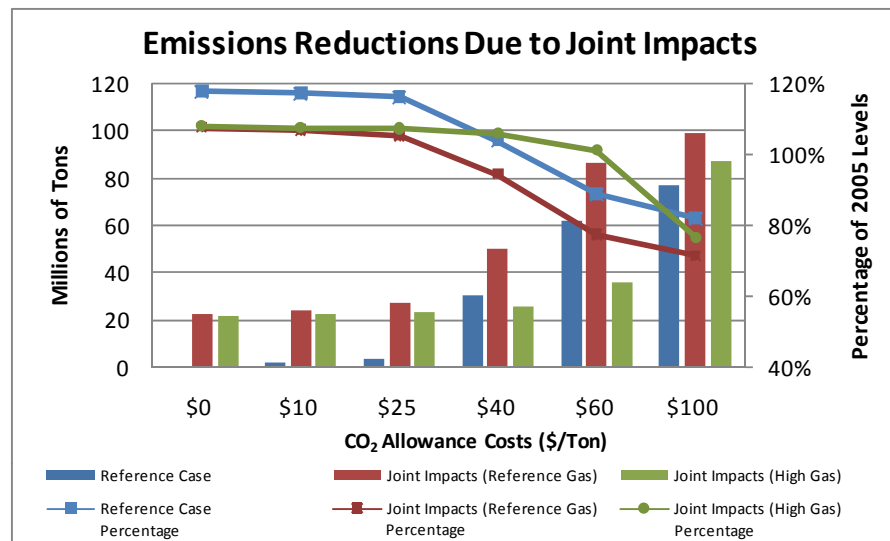
Effects with additional CREZ generation

- \$7/MMBtu natural gas prices
- Expected load levels
- 18,456 MW installed wind (compared to 9,400MW)
- Objective: to reduce carbon emissions from electric generation in ERCOT to 2005 levels by 2013
- CO₂ allowance costs must rise to between \$25 and \$40 per ton
- Annual increase in wholesale power costs of approximately \$7 billion
- **Increase in typical consumer's monthly bill of \$22**



Joint Impacts

- The combination of additional CREZ wind generation and lower energy usage results in lower increases.
- However, the combination of additional CREZ wind generation and 2% lower energy usage does not offset the impact of an increase of natural gas prices from \$7/MMBtu to \$10/MMBtu.



Questions?