

Gulf Coast Power Association
Commissioner Donna L. Nelson
October 7, 2009

LOOKING TO THE PAST, PLANNING FOR THE FUTURE

The Texas Electric Market

Where have we been,
where are we now, and
where are we going?

October 2008

- A CNBC study ranked Texas as “America’s Top State for Business.”
- Texas is home to more Fortune 500 companies than any other state
- For the third year in a row, CEO Magazine named Texas the “Best State to do Business”
- In the past five years, Texas has created 1.2 million jobs
- Last year alone, Texas created half of all the jobs that were created in the US

October 2009

"Texas is a state where a dream can be put to work." - Governor Rick Perry

WISERTrade
"No. 1 Exporting State for Seven Straight Years"

ERNST & YOUNG
"No. 1 in U.S. for Attractiveness in Renewable Energy Investments"

FT FINANCIAL TIMES
"No. 1 in 'State of U.S. Economy' Report"

CNBC
"America's No. 1 State for Economy"

TIME
"No. 1 in Projected Job Growth"

FORTUNE
"Most Fortune 500 & 1000 Corporate Headquarters"

SITE Selection
www.siteselection.com
"No. 1 for Corporate Site Selectors"

Texas leads the nation in homebuilding with more than 63,900 homebuilding permits in the last 12 months, more than California and Florida combined.
(John Burns Real Estate Consulting, July 2009)

Texas was ranked as the 2009 Best Business Climate by Business Facilities magazine.
(Business Facilities, July 2009)

Texas ranks as the No. 1 state for Projected Job Growth from 2009 to 2019.
(TIME, May 25, 2009)

For the fourth year in a row, CEOs rated Texas as the #1 state for business and job growth.
(Chief Executive Magazine, March 2009)

Two Texas metros topped the list for Corporate Facility Project Attraction in Site Selection's annual Governor's Cup competition with Houston ranked No. 1 and Dallas ranked No. 2.
(Site Selection, March 2009)

Texas is home to the top five U.S. metros in "The Healthiest Housing Markets for 2009" report. Rankings include: Houston (1), Austin (2), Fort Worth (3), San Antonio (4) and Dallas (5).
(Builder Magazine, February 2009)

Texas is the No. 1 relocation destination in the U.S. for the fourth year in a row based on Allied Van Lines' 41st Annual Magnet Report, which tracks U.S. migration patterns.
(SIRVA, Inc., January 2009)

TEXAS
WIDE OPEN FOR BUSINESS

Challenges Then

Need to address challenge areas

- Transition to nodal market
- Wind integration and backup
- Increasing infrastructure costs
- Uncertainty created by potential federal carbon legislation
- Misconceptions re: electric competition created by press

Challenges Now

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Retail Prices - Then

Wire Co.	Price	REP	K Type	K Term	Reg'd rate	% Inc.
AEPC	13.1	StarTex	Fixed	6-mo	9.6	36%
AEPN	10.5	Commerce	Fixed	12-mo	10.0	5%
TNMP	12.5	StarTex	Var.	1-mo	10.6	18%
Centerpt	12.7	StarTex	Fixed	7-mo	10.4	22%
Oncor	11.8	StarTex	Fixed	7-mo	9.7	22%

Retail Prices - Now

Wire Co.	Price	REP	K Type	K Term	Reg'd rate	% Inc.
AEPC	9.5	Spark	Fixed	3-mo	9.6	-1.0%
AEPN	8.5	Kinetic	Var.	1-mo	10.0	-15%
TNMP	8.9	Southwest P&L	Var.	1-mo	10.6	-16%
Centerpt	9.5	Spark	Fixed	3-mo	10.4	-8.7%
Oncor	8.6	Southwest P&L	Var.	1-mo	9.7	-11%

Texas Customers Like Choice

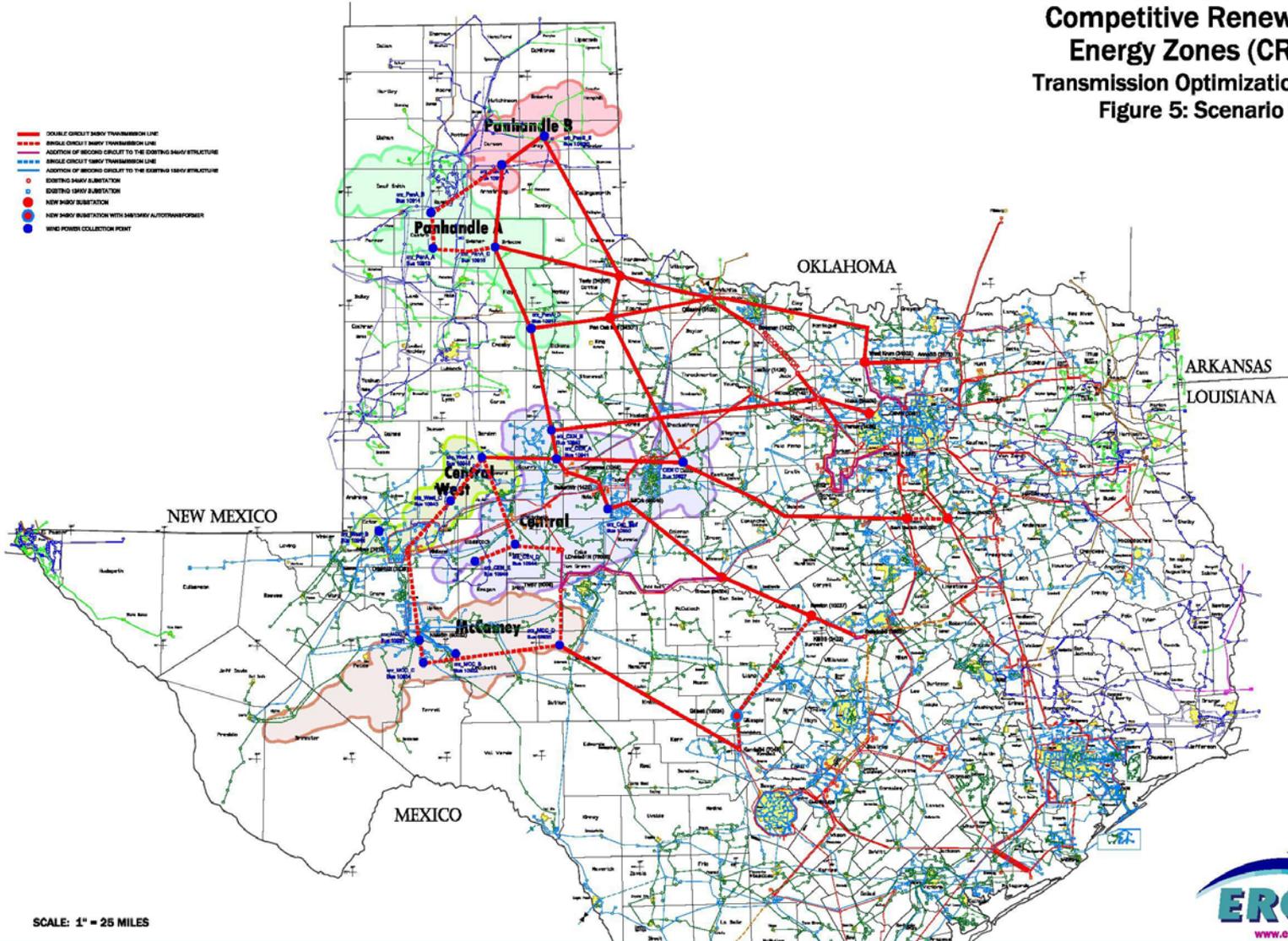
- In a 2008 poll of registered voters, **80 percent** favor a competitive electricity market
- Approximately **44 percent** of eligible Texas residents have chosen non-incumbent providers
- Approximately **70 percent** of eligible consumers in the commercial and industrial segment are with non-incumbent providers

Retail Market

- Revised REP Rules – REP Certification, REP Disclosure, POLR, Customer Switching
- Legislation passed
- Other issues being considered

CREZ Map

Competitive Renewable Energy Zones (CREZ)
Transmission Optimization Study
Figure 5: Scenario 2

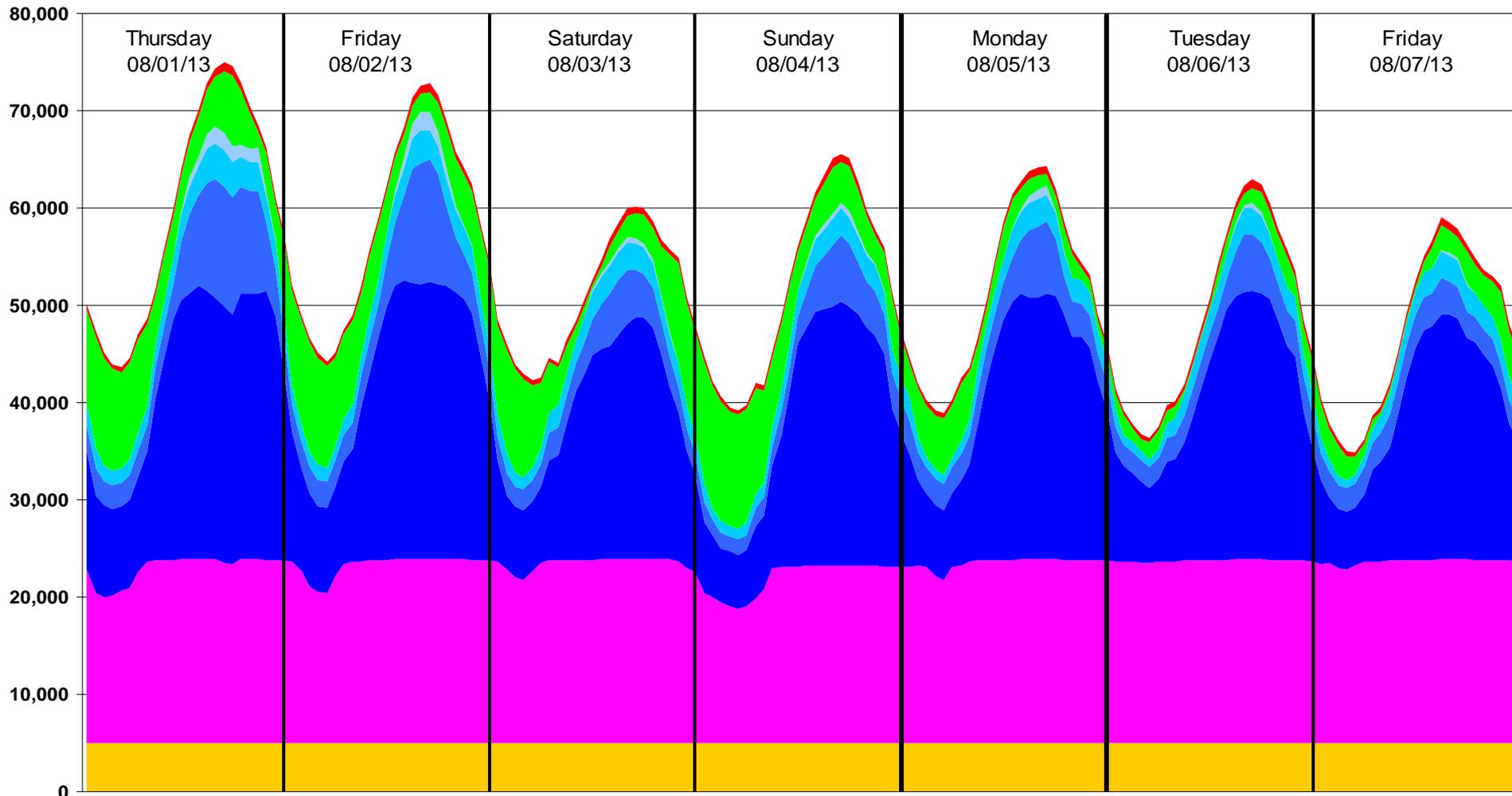


CREZ Update

- Default CCNs filed and approved
- Priority and Other CCNs to be filed starting in October
- Financial Commitment and Dispatch Priority
- Still on track for completion by 2013

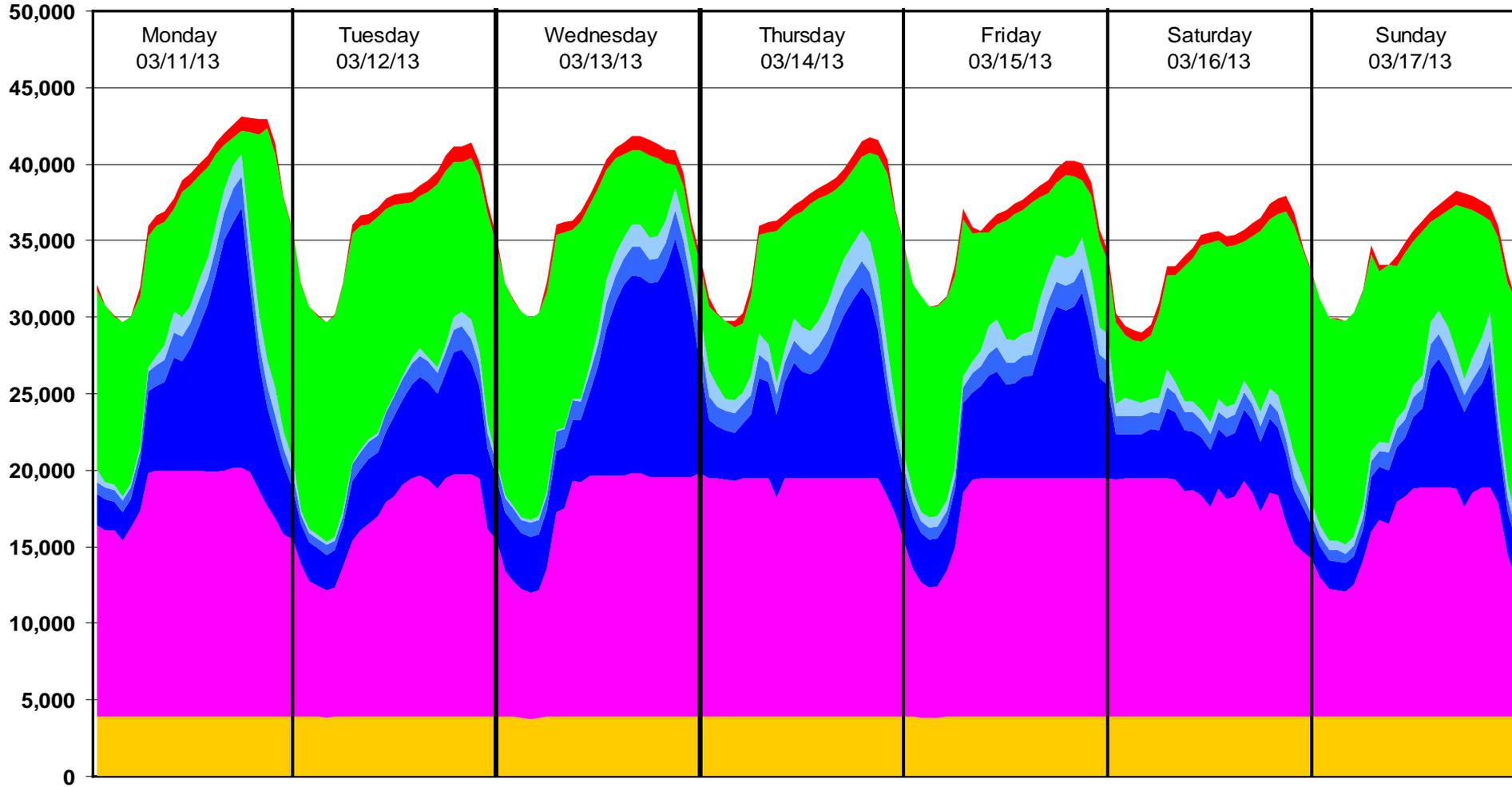
Wind Integration – Peak Load Week

■ Nuke ■ Coal ■ Combined Cycle ■ Gas Steam ■ Private ■ Gas Turbine ■ Wind ■ Other



Wind Integration – High Wind Week

■ Nuke ■ Coal ■ Combined Cycle ■ Gas Steam ■ Private ■ Gas Turbine ■ Wind ■ Other



History of Nodal in Texas

- ◎ September 2003, PUC approved transition to nodal wholesale market designed to:
 - Reduce local transmission congestion costs
 - Provide better price signals for locating generation and transmission
 - Develop a day-ahead energy market
 - Address other wholesale market concerns

Key Findings of CBA

- Overall system-wide benefit (including benefits from improved generation siting) = \$520 million.
- Savings to consumers = \$5.6 billion (NPV) over the first ten years of operation of the nodal market.

What is Nodal?

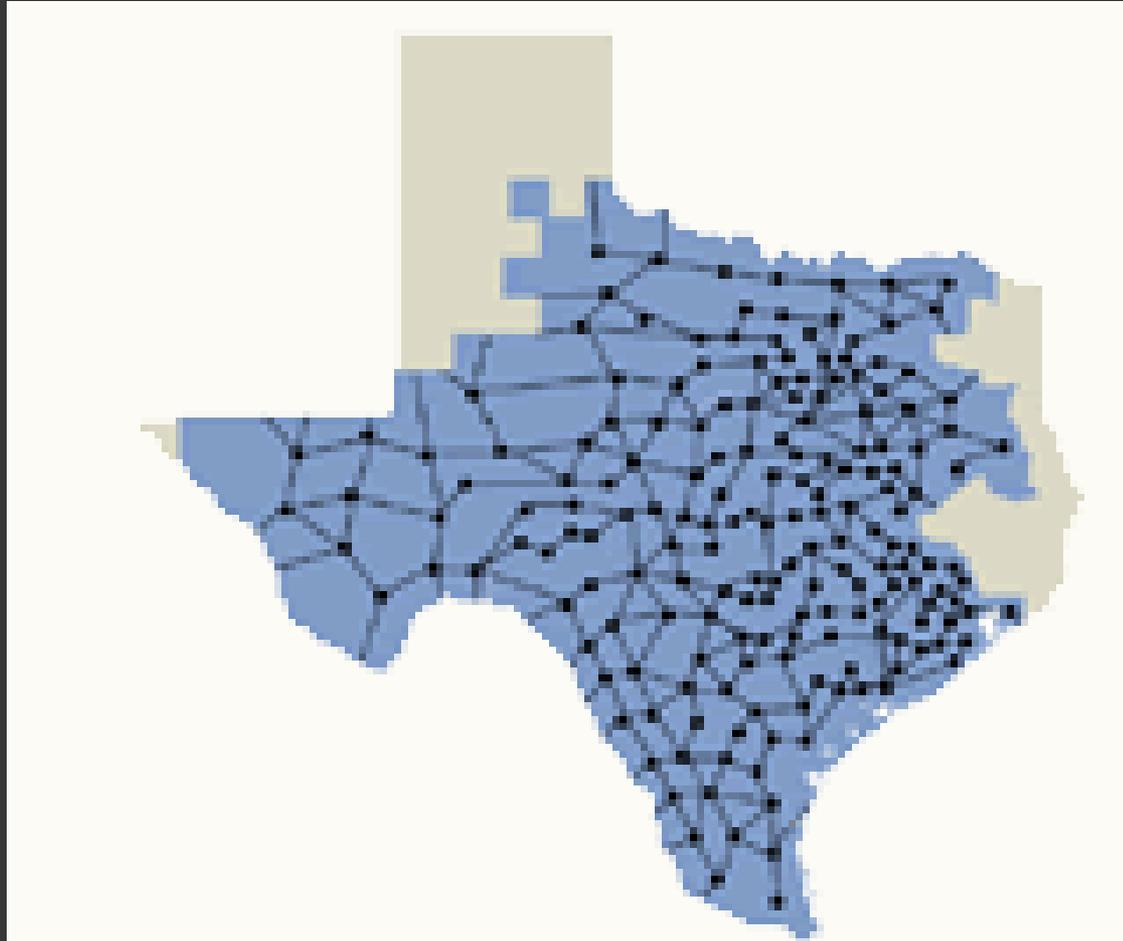
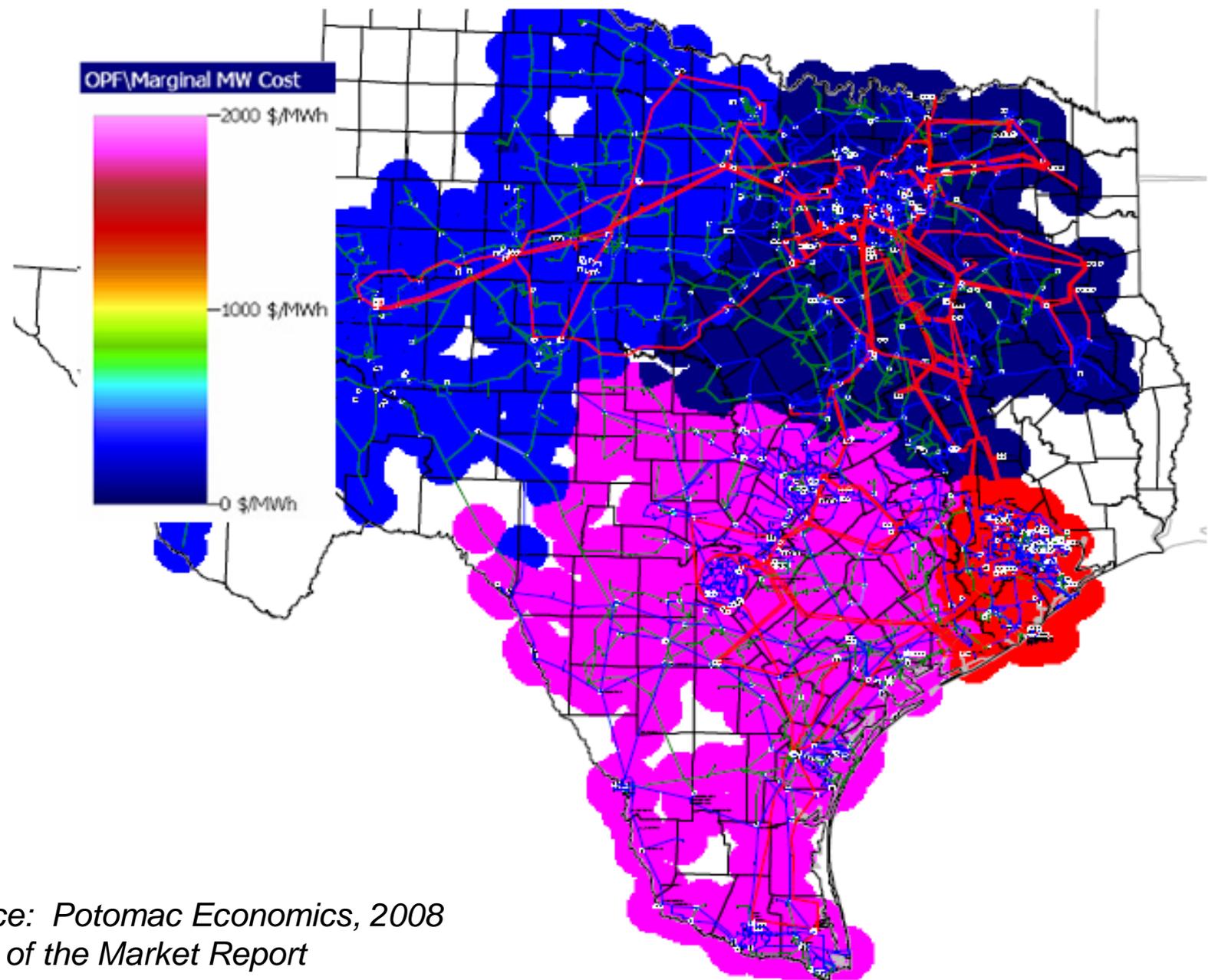
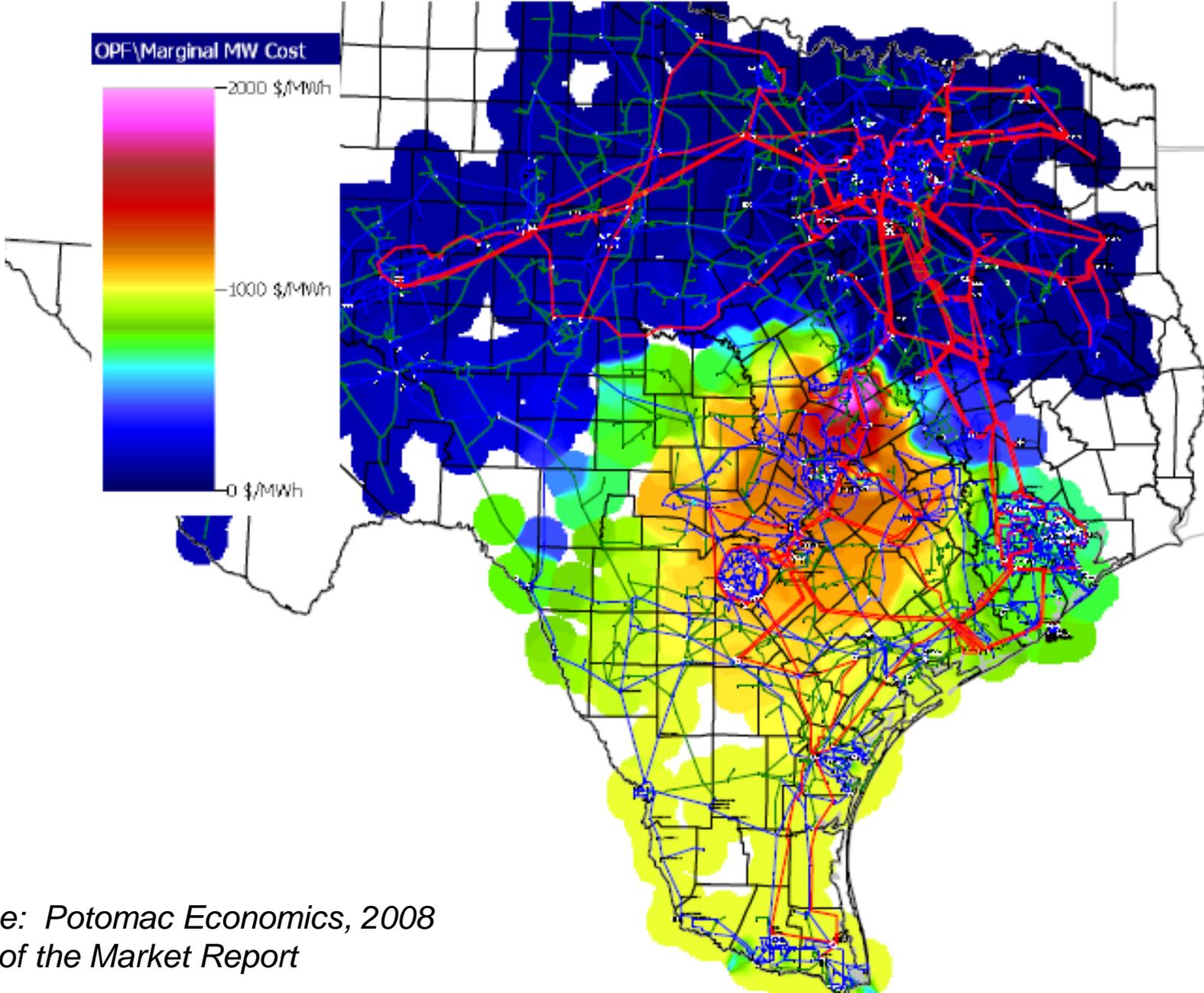


Figure 50: Pricing Contours of Unresolved Congestion in the Zonal Market



Source: Potomac Economics, 2008
State of the Market Report

Figure 51: Pricing Contours of Unresolved Congestion in the Nodal Market



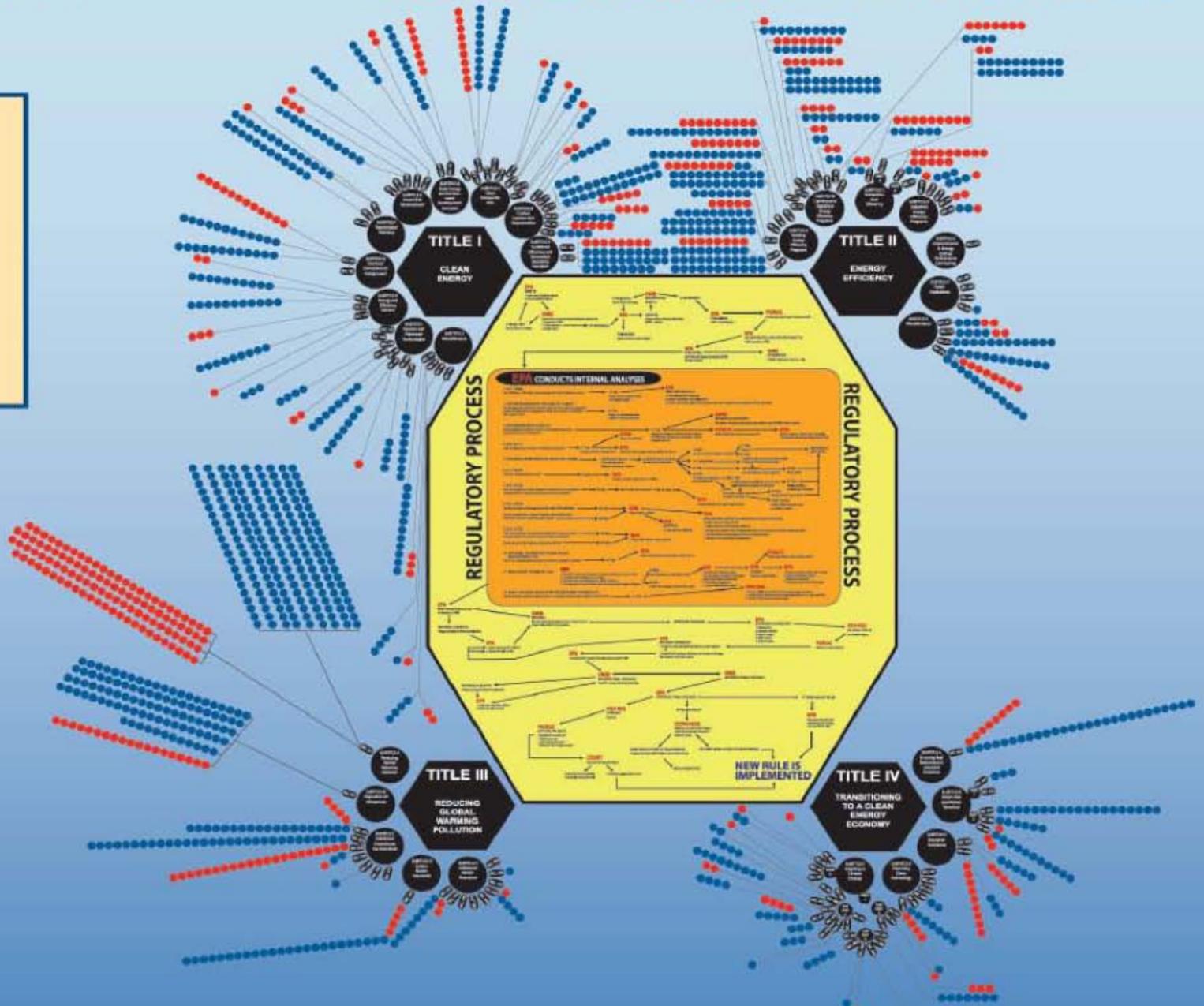
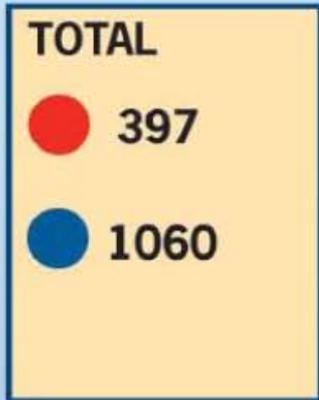
Source: Potomac Economics, 2008
State of the Market Report

Federal Legislation

- Waxman-Markey Carbon Legislation
- Federal Renewable Portfolio Standard
- Nuclear Energy

AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009 (H.R. 2454)

REGULATIONS & MANDATES



Cost of Waxman-Markey

- Actual cost estimates range from low of cost of postage stamp per day to over \$3,000 per household
- Cost estimates do not include loss of jobs or reduction in GDP resulting from enactment
- CBO and Joint Committee on Taxation estimate that over ten year period this legislation would increase direct federal spending by ~\$821 billion and increase federal revenue by ~\$846 billion.

Cost of Waxman-Markey

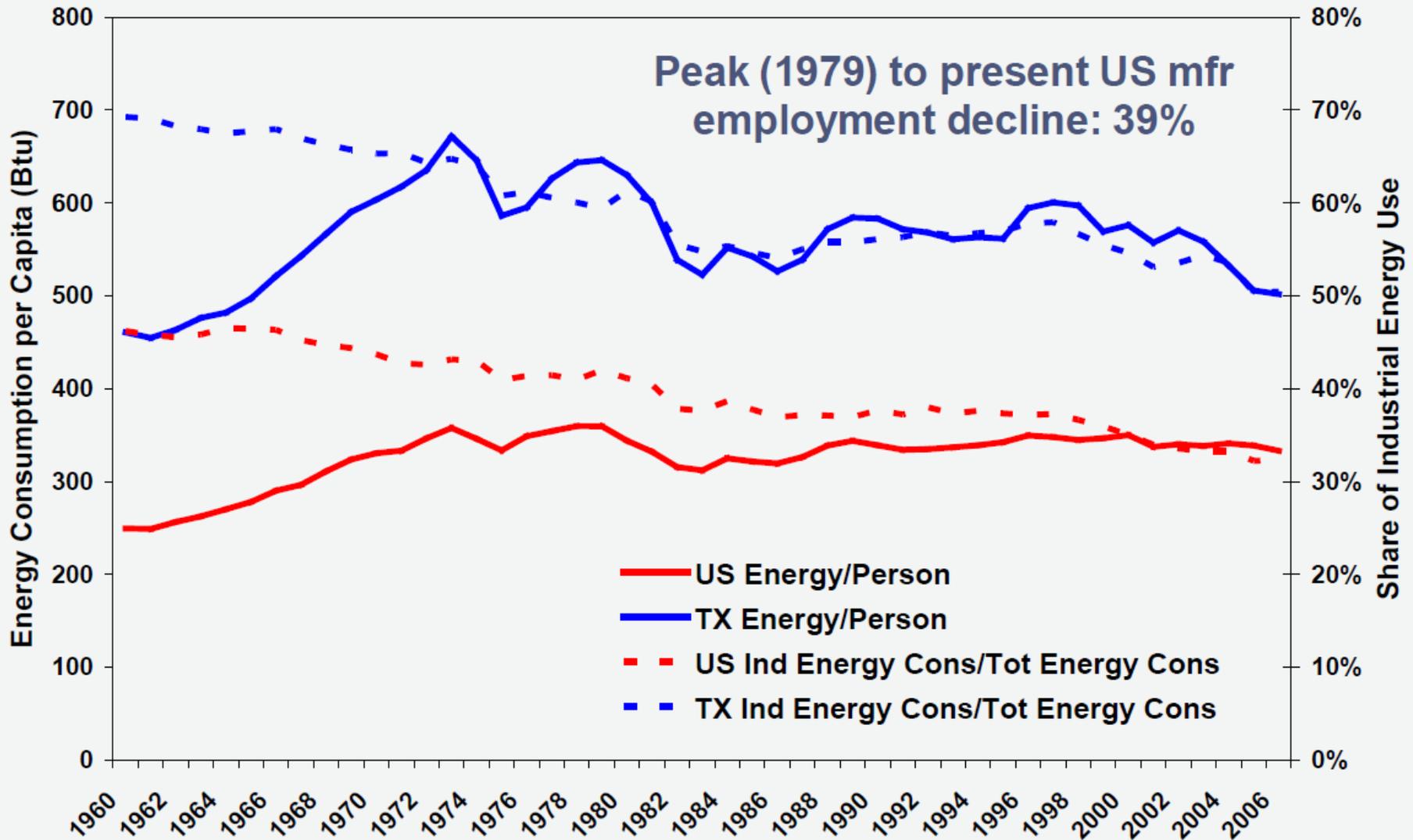
- Gasoline prices ↑58%
- Average household electric rates ↑90 percent

Cost of Waxman-Markey

From Heritage Foundation (Macro impacts 2012-2035):

- \$9.4 trillion lost GDP
- \$5.7 trillion additional taxes
- 2.5 million lost jobs
- Manufacturing: -1.4 million jobs in 2035

Texas Has Energy Intensive Industries



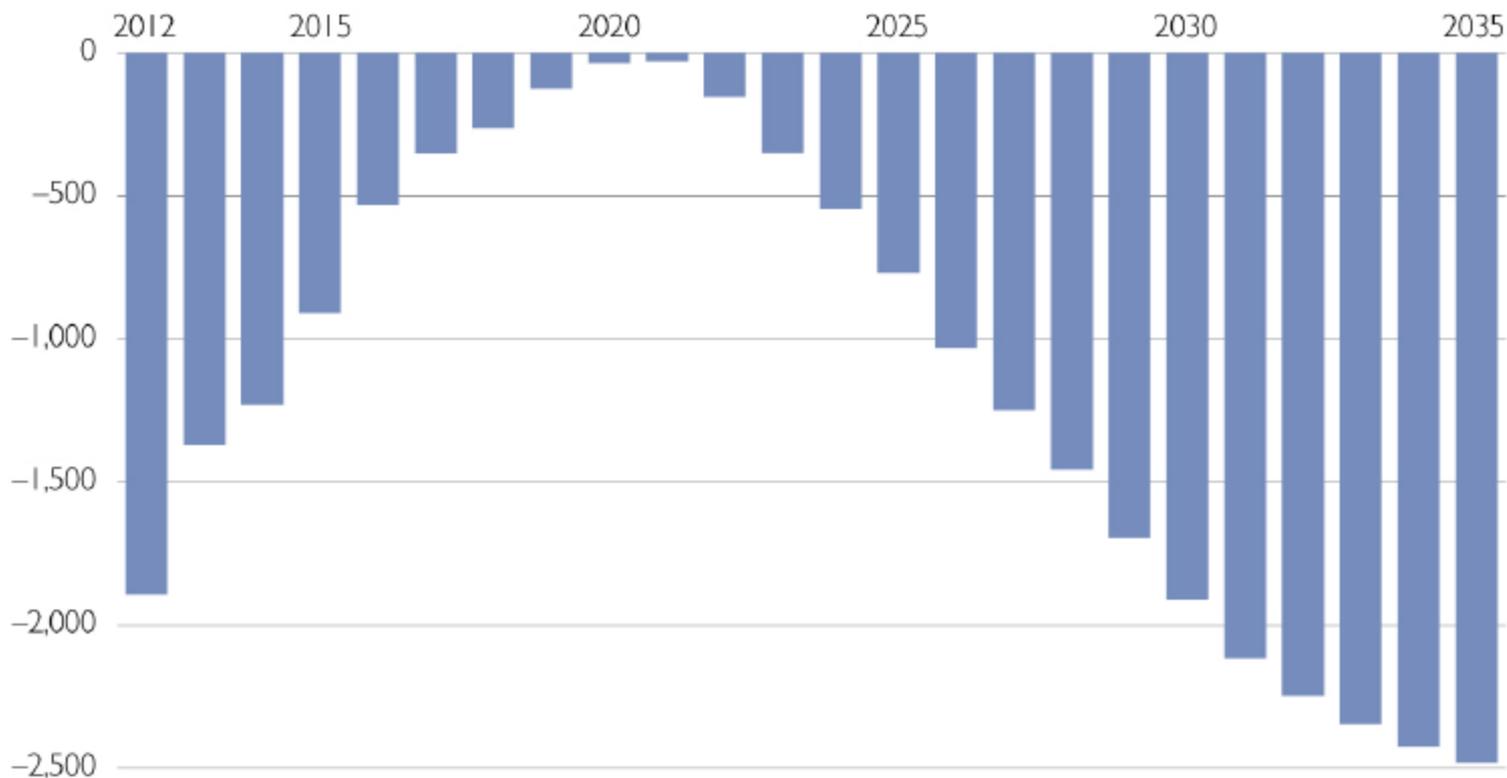
Cost of Waxman-Markey to Texans

From Heritage Foundation (Macro
impacts 2012-2035):

- Lower gross state product by \$26.128 million
- Reduce personal income by \$9.187 million
- Almost 100,000 lost jobs

How Waxman-Markey Would Affect Employment

Annual Change in Employment Due to Waxman-Markey Climate Change Bill, in Thousands of Jobs



Source: Heritage Foundation calculations based on the IHS/Global Insight U.S. Macroeconomic Model.

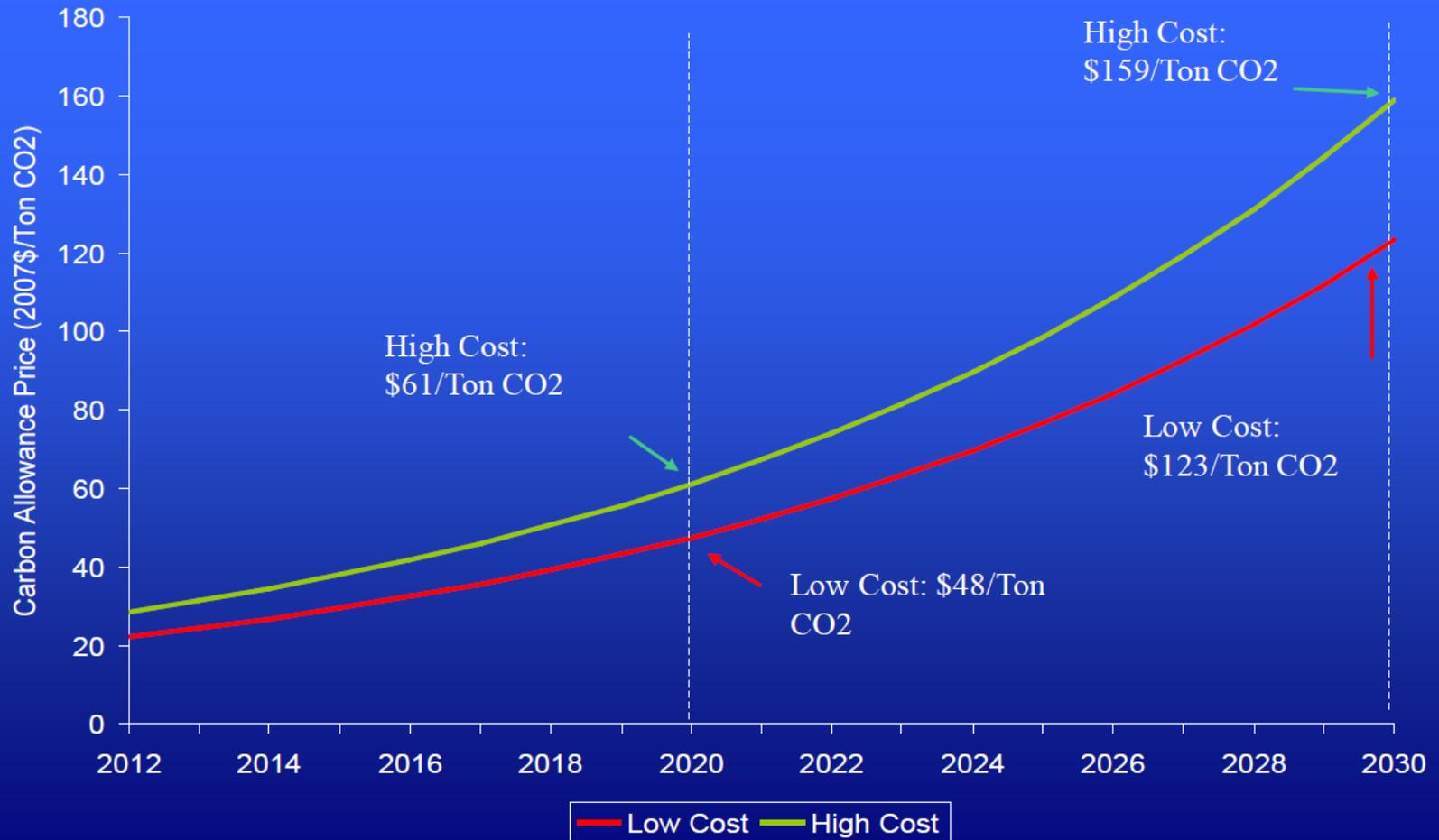
Energy & Environment  [heritage.org](https://www.heritage.org)

Source: The Heritage Foundation Center for Data Analysis, Dr. Karen A. Campbell

ACESA acknowledges job losses

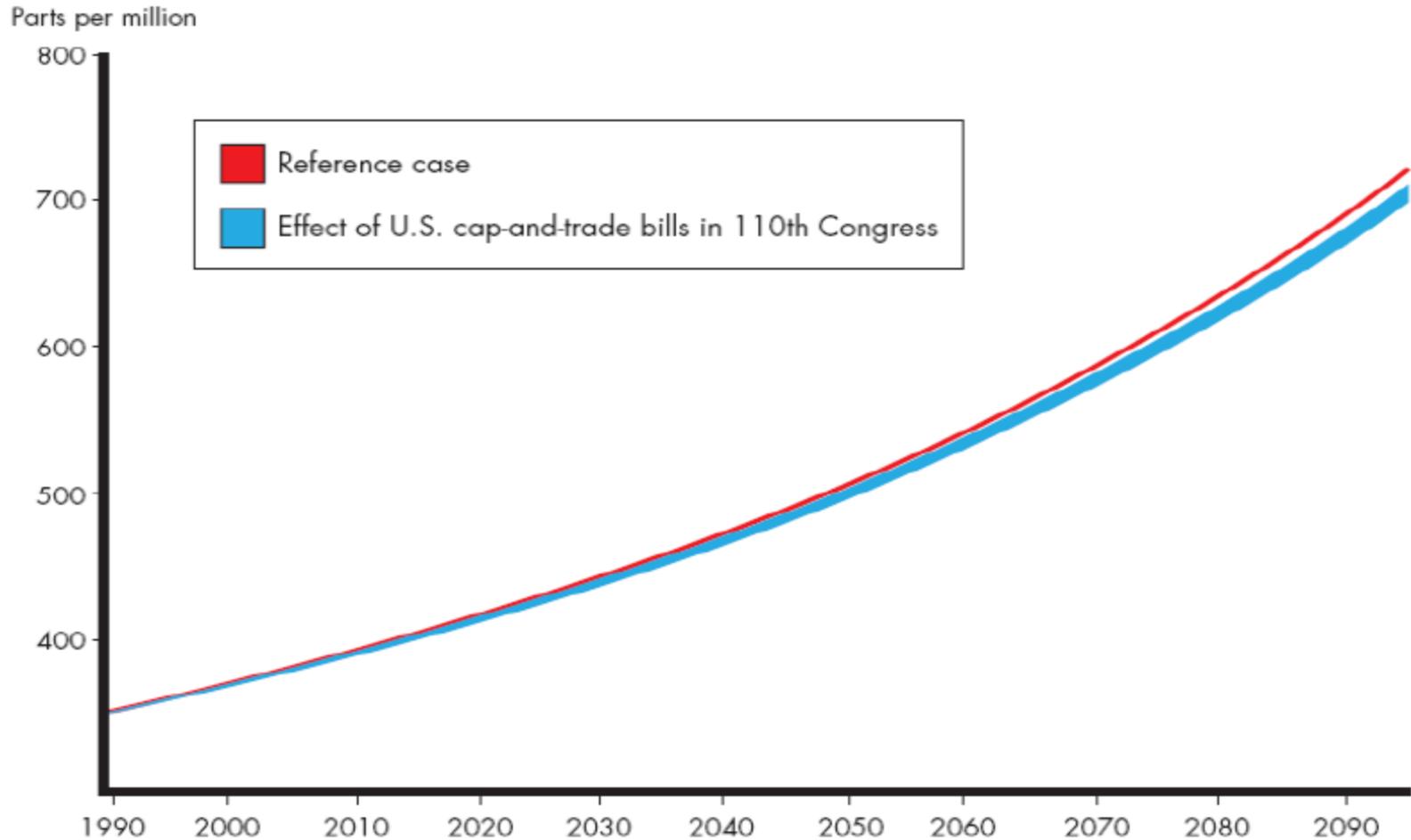
- ◎ ***Includes new program: “Climate Change Worker Adjustment Assistance” :***
 - 3 years of unemployment pay;
 - 80 percent of health care premiums;
 - \$1,500 to look for a new job and another \$1,500 to relocate for a new job;
 - “Additional employment services” like skills assessment, job counseling, and training.
- ◎ **The bill provides no support for those who are forced to close their small businesses.**

Macroeconomic Impact of Waxman Markey Bill: Carbon Allowance Price (2007\$/Ton CO₂)



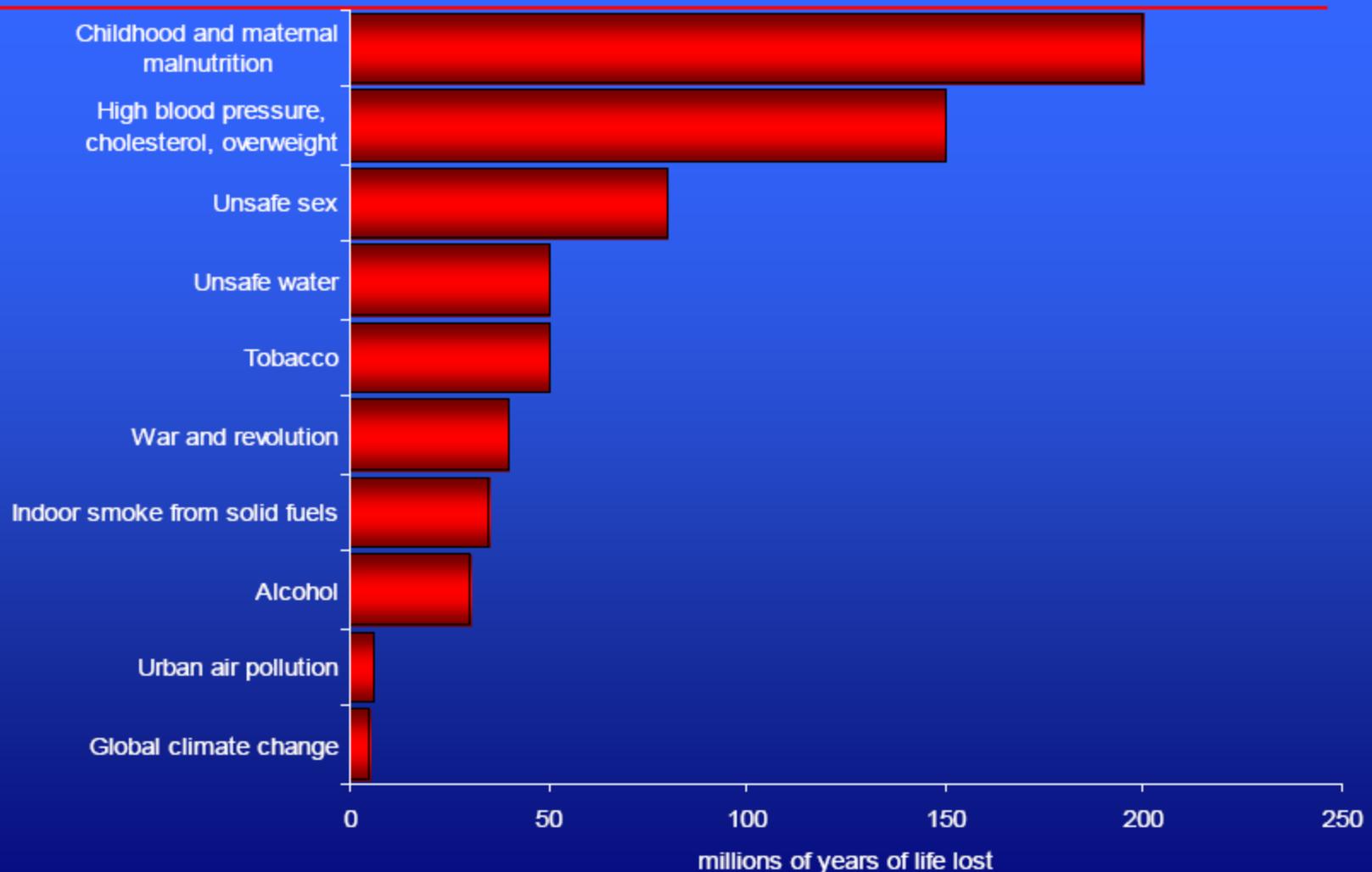
Source: American Council for Capital Formation, Dr. Margo Thorning

Global CO2 Concentrations: Carbon emissions are projected to rise over the next several decades



Source: American Council for Capital Formation, Dr. Margo Thorning

Contributors to Global Mortality in 2000: Putting Climate Change in Perspective

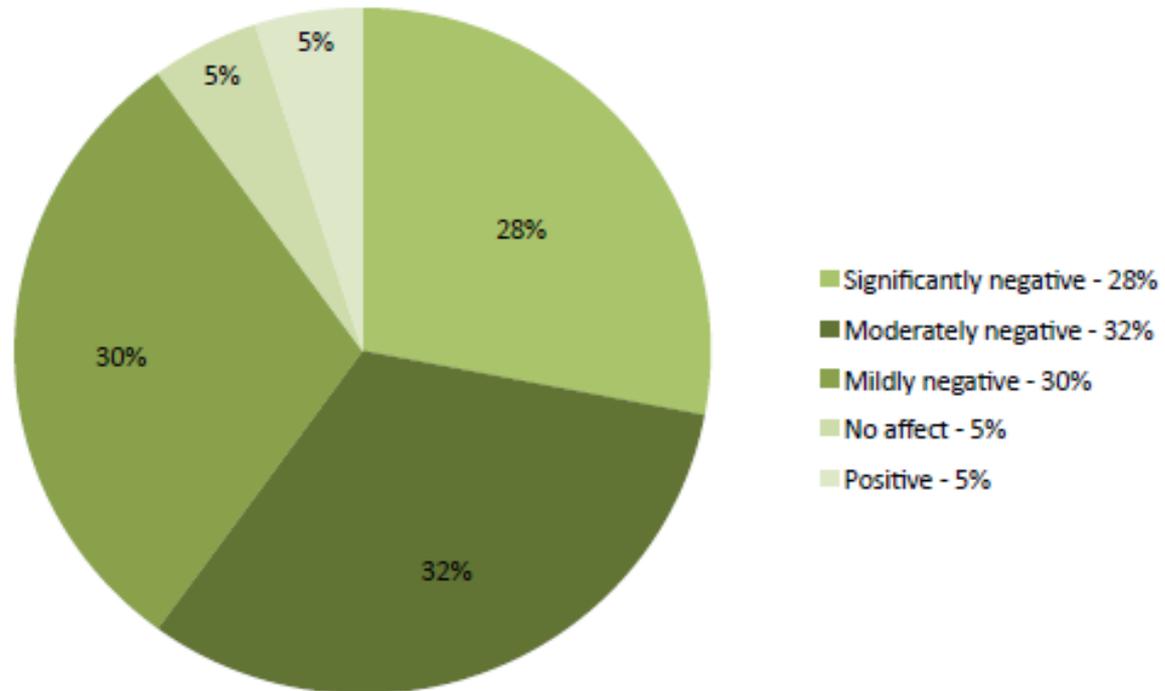


Source: John P. Holdren, "Science and Technology for Sustainable Well-Being," *Science*, May 2009.

Source: American Council for Capital Formation, Dr. Margo Thorning

How Energy Prices Affect Small Business

1. What has been the affect on your business of rising and/or volatile energy prices?



Source: National Small Business Association, 2009 Energy Survey of Small Business

How will Waxman Markey affect farmers?

- In Texas, agriculture contributes 9.5 percent of our GSP
- Proponents analysis: total farm expenses would increase by \$700 million each year
- American Farm Bureau: legislation will cost U.S. farmers ~\$5 billion in income each year by 2020, and ~\$13 billion annually by 2030.

Lessons Learned

What have we learned
since SB 7?

Questions?